PART A

IONOSPHERIC DATA

ISSUED
DECEMBER 1955

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

CRPL-F 136
PART A

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
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CONTENTS

SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in Document No. 626-E referred to above, plus an additional symbol, R: "Scaling of characteristic is influenced or prevented by absorption in the neighborhood of the critical frequency," (May 1955).

a. For all ionospheric characteristics:

Values missing because of A, C, F, L, M, N, Q, R, S, or T are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic; the symbol D, only when it replaces a frequency characteristic.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of E or G (and B when applied to the daytime E region only) are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, the data are considered insufficient and no median value is computed.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, as long as there are at least five values, the median is not considered doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

a. Differences in scaling records when spread echoes are present.

b. Omission of values when foF2 is less than or equal to foF1, leading to erroneously high values of monthly averages or median values.

c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series report IRPL-F5.

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. The following points are worthy of note:

a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.

b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.

c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

PREDICTED AND OBSERVED SUNSPOT NUMBERS

The following predicted smoothed 12-month running-average Zürich sunspot numbers were used in constructing the contour charts:

Month	Predicted Sunspot Number										
	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946
December		42	11	15	33	53	86	108	114	126	85
November		35	10	16	38	52	87	112	115	124	83
October		31	10	17	43	52	90	114	116	119	81
September		30	8	18	46	54	91	115	117	121	79
August		27	8	18	49	57	96	111	123	122	77
July		22	8	20	51	60	101	108	125	116	73
June		18	9	21	52	63	103	108	129	112	67
May	77	16	10	22	52	68	102	108	130	109	67
April	68	13	10	24	52	74	101	109	133	107	62
March	60	14	11	27	52	78	103	111	133	105	51
February	53	14	12	29	51	82	103	113	133	90	46
January	48	12	14	30	53	85	105	112	130	88	42

The latest available information follows concerning the corresponding observed Zürich numbers (some of which may be subject to minor change) beginning with the minimum of April 1954.

Observed Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	9	12
1955	14	16	19	23	29							

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 60 and figures 1 to 120 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Buenos Aires, Argentina

Australian Department of Supply and Shipping, Bureau of Mineral Resources, Geology and Geophysics:
Watheroo, Western Australia

University of Graz:
Graz, Austria

Meteorological Service of the Belgian Congo and Ruanda-Urundi:
Elisabethville, Belgian Congo
Leopoldville, Belgian Congo

University of Sao Paulo:
Sao Paulo, Brazil

British Department of Scientific and Industrial Research, Radio Research Board:
Falkland Is.
Inverness, Scotland
Port Lockroy
Singapore, British Malaya
Slough, England

Defence Research Board, Canada:
Baker Lake, Canada
Churchill, Canada
Ottawa, Canada
Resolute Bay, Canada
Winnipeg, Canada

Radio Wave Research Laboratories, National Taiwan University, Taipeh, Formosa, China:
Formosa, China

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover, Germany:
Lindau/Harz, Germany

The Royal Netherlands Meteorological Institute:
De Bilt, Holland

Icelandic Post and Telegraph Administration:
Reykjavik, Iceland

Indian Council of Scientific and Industrial Research, Radio Research Committee, New Delhi, India:
Ahmedabad, India (Physical Research Laboratory)
Bombay, India (All India Radio)
Calcutta, India (Institute of Radio Physics and Electronics)
Delhi, India (All India Radio)
Madras, India (All India Radio)
Tiruchy (Tiruchirapalli), India (All India Radio)

Ministry of Postal Services, Radio Research Laboratories, Tokyo, Japan:
Akita, Japan
Tokyo (Kokubunji), Japan
Wakkanai, Japan
Yamagawa, Japan

Norwegian Defence Research Establishment, Kjeller per Lillestrom, Norway:
Oslo, Norway
Tromso, Norway

Manila Observatory:
Baguio, P. I.

South African Council for Scientific and Industrial Research:
Capetown, Union of South Africa
Johannesburg, Union of South Africa
Nairobi, Kenya (East African Meteorological Department)

Research Laboratory of Electronics, Chalmers University of Technology, Gothenburg, Sweden:
Kiruna, Sweden

Research Institute of National Defence, Stockholm, Sweden:
Upsala, Sweden

Post, Telephone and Telegraph Administration, Berne, Switzerland:
Schwarzenburg, Switzerland

United States Army Signal Corps:
Adak, Alaska
Ft. Monmouth, New Jersey
Okinawa I.
White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):
Guam I.
Maui, Hawaii
Narsarssuak, Greenland
Panama Canal Zone
Puerto Rico, W. I.
Talara, Peru (Instituto Geofisico de Huancayo)
Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 61 through 72 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at Ft. Belvoir, Virginia.

IONOSPHERIC STORMINESS AT WASHINGTON, D.C.

Publication of ionosphere character figures for Washington, D. C., was discontinued with data for September 1955, published in CRPL-F134. Inquiry concerning ionospheric conditions at Washington should be addressed to North Atlantic Radio Warning Service, Box 178, Ft. Belvoir, Virginia.

ERRATA

1. F135, p. 18, tables 55 and 56: The (M3000)F2 column in table 55 belongs in table 56 and vice versa. A corresponding shift of (M3000)F2 graphs should be made in figs. 109 and 111 in the same issue.

2. F135, p. 56, fig. 99: The readings for foE at 14:46 and 16:46 should be 2.1 and 1.4 respectively.

INDEX OF IONOSPHERIC DATA PUBLISHED IN 1955
(CRPL-F 125 THROUGH F 134, F 135 A, AND F 136 A)

The following index of tables and graphs of ionospheric data published in the CRPL-F series in 1955 is divided into two parts. Part I is an index of data observed in 1954 and 1955. Part II is an index of data observed prior to 1954.

In general, both table and graphs for a given station for a given month appear in the same issue.

Indexes of ionospheric data published prior to 1955 are in IRPL-F17, CRPL-F28, -F40, -F52, -F64, -F76, -F88, -F100, -F112, and -F124.

The following errata published in 1955 refer to publications prior to 1955:

CRPL-F125, p. 11, Leopoldville, March 1954 and Djibouti, July 1952.

CRPL-F127, p. 12, erratum 1, San Francisco, October 1954, and erratum 2, San Francisco, October 1954.

CRPL-F134, p. 12, erratum 2 (Washington, D. C., detailed tabulations for March, May - July, September and October 1954).

PART I

Index of Tables and Graphs of Ionospheric Data Observed in 1954 and 1955 and Published in 1955 (CRPL-F125 through F134, F135A, and F136A)

Station	1954												1955									
	J	F	M	A	M	J	Jy	A	S	O	N	D	J	F	M	A	M	J	Jy	A	S	O	N
Adak, Alaska											125	127	127	128	129	130	131	132	133	134	135	136	
Ahmedabad, India													133	134	135	136							
Akita, Japan								126	126	126	127	128	129	129	131	132	133	134	135	136			
Anchorage, Alaska											126	127	128	129	131	132	132	133	135	135			
Baguio, P. I.								125	126	126	127	128	129	129	130	132	133	134	134	136			
Baker Lake, Canada								126	126	126	127	127	128	129	130	131	132	134	134	135	136		
Bombay, India					125	130	128	129		133	133	133	133	133	135	136							
Brisbane, Australia				125	125	127	128	128	128	129	132	132	133	133									
Buenos Aires, Argentina								125	125	126	131	131	131	131	131	133	133	134	135	136	136		
Calcutta, India			129	129	129	129	128	132	132	132	132	132	133	134	135	136							
Canberra, Australia					125	127	128	128	128	129	132	132	133	133									
Capetown, Union of S.Africa							125	125	126	126	127	128	129	130	131	132	134	136					
Casablanca, Morocco	131	131	131	131	134	134	134	134	134[a]	134	134	134											
Christchurch, New Zealand								125	126	127	128	129	132	132	133	133							
Churchill, Canada								126	126	126	127	127	128	129	130	131	132	134	134	135	136		
De Bilt, Holland								125	126	126	127	127	128	129	130	131	132	134	135	136			
Decepcion I.								125	126	126	131	131	131		131	133	134	134	135				
Delhi, India					125	130	128	129	133	133	133	133	133	133	135	136							
Elisabethville, Belgian Congo															130	131	132	133	134	136	136		
Fairbanks, Alaska										125	125	127	128	129	130	133 130	131	132	133	135			
Falkland Is.						128	127	129	129	128	130	132	136	133	135	135							
Formosa, China								125	126	126	126	127	127	128	129	130	131	132[b] 135	135	134	135	136	
Ft. Monmouth, New Jersey															130	131	132	132	133	134	135	136	
Godhavn, Greenland	125	127			125	125	125					132	133	133	133	133	135						
Graz, Austria								125	125	126	127	127	127	128	129	133	133	133	135	135	135	136	
Guam I.											125	126	127	128	129	130	131	132	133	134	135	136	
Hobart, Tasmania				125	125	127	128	128	128	129	132	132		133									
Huancayo, Peru								125	125	126	126	127	128	129	130	132	132	134	134	135	135		
Ibadan, Nigeria		125	127	127	130	130	130	130	130	132	132	132	132	133	134								
Inverness, Scotland							128	127	129	129	128	129	132	136	133	135	135						
Johannesburg, Union of S.Africa								125	126	126	127	128	129	130	131	132	134	136					
Kiruna, Sweden									126	126	127	127	128	129				136	136	136			
Leopoldville, Belgian Congo							125	125	126	126	127	127	127[c]	128	130	131	132	134	134	136	136		
Lindau/Harz, Germany								126	125	126	126	127	128	130	130	132	132	134	134	136			
Lulea, Sweden		125		135	135	135				126	127	127	128	129	130	135							
Madras, India					125	130	128	129	133	133	133	133	133	133	135[f]	136							
Maui, Hawaii											125	126	127	128	129	130	131	132	133	134	135	136	
Nairobi, Kenya								126	127	128	128	130	132		135	136	136						
Narsarssuak, Greenland											125	126	127	128	129	130	131	132	133	134	135	136	
Okinawa I.											126	126	128	128	129	130	131	132	133	134	135	136	

PART I (CONTINUED)

Station	1954												1955											
	J	F	M	A	M	J	Jy	A	S	O	N	D	J	F	M	A	M	J	Jy	A	S	O	N	
Oslo, Norway						125	126	125	126	126	127	127	127	128	129	130	131	132	134	134	135	136		
Ottawa, Canada								126	126	126	127	127	128	129	130	131	132	134	134	136	136			
Panama Canal Zone											125	126	127	128	129	130	131	132	133	134	135	136		
Point Barrow, Alaska										125	125	130	130	130	130	132	132	132						
Poitiers, France	131	131	131	131	134	134	134	134	134	134	134	134												
Port Lockroy					125	129	127	129	129	128	130	132	136	135	135	135[g]								
Puerto Rico, W. I.											125	126	127	128	129	130	131	132	133	134	135	136		
Rarotonga I.							125	126	126	127	128	129	132	132	133	134	134							
Resolute Bay, Canada							125	126	126	126	126	127	128	129	130	131	132	134	134	136	136			
Reykjavik, Iceland									125	126	126	128	128	130	130	131	132	133	135	136				
San Francisco, California											125	126[d]	127	128	131	131	132	133	134	135				
Sao Paulo, Brazil					129	129	128	129	129	129	131	131	136	136	136									
Schwarzenburg, Switzerland								125	125	126	127	127	128	128	130	131	132	134	134	135	136			
Singapore, British Malaya						125	128	127	129	129	128	130	132	136	133	135	135							
Slough, England							125	127	129	129	128	130	132	136	133	134	135							
Talara, Peru														130	130		135	135	136	135	135			
Tiruchy, India					125	130	128	129	133	133	133	133	133	133	135[f]	136								
Tokyo, Japan								125	126	126	127	128	129	129	131	132	133	134	135	136				
Townsville, Australia				125	125	127	128	128	128	129	132	132	133	133										
Tromso, Norway							126	129	128	128	128	129	131	129	130	130	132	133	134	135	135	136		
Upsala, Sweden							125	126		126	127	127	127	128	129	130	131	132	134	134	135	136		
Wakkanai, Japan								125	126	126	127	128	129	129	131	132	133	134	135	136				
Washington, D. C.												125	126[e]	127[e]	128[e]	129[e]	130[e]	131[e]	132[e]	133[e]	134	135	136	
Watheroo, W. Australia								126	126	126	127	127	129	129	130	132	133	134	135	136				
White Sands, New Mexico											125	126	127	128	129	130	131	132	133	134	135	136		
Winnipeg, Canada							126	126	126	126	126	127	128	129	130	131	132	134	134	135	136			
Yamagawa, Japan								125	125	126	127	128	129	129	131	132	133	134	135	136				

[a]See Erratum 2 in F135(A), p. 8.

[b]See Erratum 3 in F135(A), p. 8.

[c]See Erratum in F128, p. 12.

[d]See Erratum 1 in F127, p. 12.

[e]See Erratum 2 in F134, p. 12.

[f]See Erratum 1 in F136(A), p. 8.

[g]See Erratum 2 in F136(A), p. 8.

PART II

Index of Tables and Graphs of Ionospheric Data Observed Prior to 1954 and Published in 1955 (CRPL-F125 through F134, F135A, and F136A)

Station	1952												1953											
	J	F	M	A	M	J	Jy	A	S	O	N	D	J	F	M	A	M	J	Jy	A	S	O	N	D
Bombay, India															130	130	130							
Brisbane, Australia																								125
Canberra, Australia																								125
Casablanca, Morocco										131	131	131				131	131	131			125	131	131	131
Dakar, French W. Africa										131	131	131	131	131	131									
Delhi, India															130	130	130							
Djibouti, French Somaliland																131[a]		125						
Fribourg, Germany									130	130	130	130	130	130	130	130	130							
Godhavn, Greenland																							125	125
Hobart, Tasmania																								125
Ibadan, Nigeria													129			129	129		129					
Leopoldville, Belgian Congo											125													
Macquarie I.								128	128	128	128	128	128	127	127	127	127	127	127	127		127	127	127
Madras, India															130	130	130							
Poitiers, France										131	131	131				131	131	131			125	131	131	131
Sao Paulo, Brazil																	129	129	129					
Tiruchy, India															130	130	130							
Townsville, Australia																								125

[a]See Erratum in F132, p. 12.

Table 1

Washington, D. C. (38.7°N, 77.1°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.5					<1.6	3.0
01	280	3.6					<1.6	3.0
02	280	3.6					<1.6	3.0
03	260	3.6					<1.6	3.1
04	250	3.4					<1.6	3.1
05	250	3.1					<1.6	3.1
06	250	2.9					<1.8	3.05
07	240	5.0			---	<1.6	1.7	3.3
08	230	7.4	230	---	110	2.2	2.2	3.5
09	230	8.3	220	---	110	2.6	<2.8	3.4
10	240	9.0	210	---	110	2.9	3.0	3.4
11	250	9.3	210	---	100	3.1		3.3
12	250	9.6	210	---	(110)	3.1		3.2
13	250	9.6	220	---	(110)	3.1		3.3
14	240	9.4	220	---	110	3.0		3.2
15	240	9.4	220	---	110	2.7		3.3
16	220	9.0	---	---	120	2.2		3.4
17	210	7.8			---	---	2.1	3.3
18	220	6.0					<1.7	3.2
19	230	5.1					<1.6	3.2
20	240	4.4					<1.6	3.2
21	250	3.8					<1.6	3.1
22	260	3.6					<1.6	3.1
23	270	3.5					<1.6	3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 2

Tromso, Norway (69.7°N, 19.0°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	(2.8)					4.3	(2.7)
01	(295)	2.7					3.8	2.8
02	(305)	2.7					3.0	2.7
03	300	3.0					2.6	2.75
04	295	2.8					1.8	2.9
05	280	2.5					2.3	2.9
06	265	3.5			---	---	1.8	3.0
07	250	4.5	---	---	---	---	2.7	3.1
08	240	5.2	240	---	115	1.9	2.3	3.1
09	240	5.7	240	---	120	2.0	2.2	3.25
10	245	6.3	235	---	120	2.0	2.5	3.15
11	245	7.0	240	---	110	2.2	>2.4	<3.15
12	245	7.0	230	---	---	2.2	<2.6	3.2
13	240	6.7	240	---	---	2.0	2.7	3.3
14	240	6.4	240	---	---	1.9	<2.0	3.3
15	240	6.0	---	---	---	1.7	2.6	3.1
16	235	5.7			---	---	2.9	3.2
17	240	5.5					2.9	3.1
18	245	5.2					3.2	3.0
19	250	4.6					3.2	2.9
20	(245)	4.6					3.6	(2.95)
21	(250)	(4.3)					>3.2	(2.9)
22	(290)	(3.5)					3.2	(2.85)
23	---	(3.2)					3.8	(2.8)

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 3

Narsarssuak, Greenland (61.2°N, 45.4°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	(3.2)					3.7	(3.0)
01	(310)	(3.2)					4.1	(3.0)
02	(320)	3.2					4.2	(2.9)
03	300	3.2					4.3	3.0
04	300	2.8					4.0	3.1
05	280	2.3					4.0	3.1
06	280	2.7					4.2	3.15
07	240	4.1	---	---	130	1.6	2.5	3.35
08	240	5.2	230	---	120	2.0	3.2	3.4
09	250	6.0	220	---	120	2.2	3.2	3.4
10	260	7.0	220	3.7	110	2.4	3.4	3.25
11	260	7.3	220	3.8	110	2.5	<3.0	3.2
12	260	7.0	230	4.0	110	2.5		3.2
13	260	7.0	220	3.9	120	2.5		3.2
14	260	7.0	230	3.7	120	2.4		3.2
15	250	6.3	240	---	120	2.1	2.5	3.2
16	250	6.5	250	---	130	1.8	2.6	3.2
17	250	5.2			---	---	3.1	3.2
18	280	4.5					4.1	3.1
19	300	4.0					4.0	3.0
20	310	3.5					4.2	3.05
21	300	(3.3)					5.8	(3.0)
22	310	(3.2)					4.7	3.0
23	290	(3.3)					5.6	(3.1)

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 4

Oslo, Norway (60.0°N, 11.1°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	2.0					<1.3	2.8
01	---	---						---
02	---	---						---
03	---	---						---
04	---	---						---
05	---	---						---
06	(260)	(2.9)			---	---	<1.4	(3.0)
07	(240)	(4.1)	255	---	---	(1.8)		(3.25)
08	(240)	(5.2)	240	---	---	(2.0)		(3.3)
09	(240)	6.2	230	---	110	(2.2)	<2.8	3.35
10	240	6.8	215	---	110	2.6	2.8	3.3
11	245	>7.0	215	---	110	2.6	3.0	3.3
12	245	7.8	215	---	110	2.6	2.9	3.3
13	245	7.9	220	---	110	2.6	2.8	3.3
14	240	7.7	225	---	105	2.4		3.3
15	230	7.5	240	---	110	2.2		3.3
16	230	6.6	245	---	110	1.9		3.3
17	225	6.4	---	---	---	1.8		3.3
18	230	6.1					<1.4	3.1
19	240	5.4					<1.4	3.15
20	240	4.5					<1.4	3.15
21	250	3.7					<1.4	3.0
22	(255)	3.2					<1.4	2.9
23	---	2.8					<1.4	2.8

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 5

Upsala, Sweden (59.8°N, 17.6°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	305	2.8					2.7	2.8
01	310	2.5					2.3	2.8
02	315	2.3					2.4	2.8
03	330	2.3					2.5	2.8
04	320	2.1					3.0	2.8
05	305	2.1			---	---	2.5	2.8
06	260	3.1			---	E	2.0	3.0
07	240	4.7	245	3.0	---	1.6	2.4	3.3
08	240	5.6	230	3.2	125	2.0	2.3	3.3
09	250	6.5	225	3.6	115	2.3	3.0	3.3
10	245	7.0	215	3.8	110	2.5	3.2	3.3
11	250	7.5	215	3.9	110	2.5	3.2	3.3
12	240	8.0	215	3.9	110	2.6	3.2	3.3
13	245	8.1	225	3.8	110	2.5	3.0	3.3
14	240	7.9	230	3.6	110	2.4	3.1	3.3
15	235	7.3	240	3.5	120	2.1	2.5	3.3
16	230	6.7	245	(3.1)	140	1.8	2.5	3.3
17	230	6.4			---	E	2.4	3.2
18	240	5.8			---	E	2.7	3.1
19	240	5.3						3.1
20	240	4.3						3.2
21	260	3.4					2.2	3.0
22	280	3.1					2.5	2.9
23	300	3.0					2.4	2.8

Time: 15.0°E.
Sweep: 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 6

Adak, Alaska (51.9°N, 176.6°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.4					<1.4	2.8
01	300	3.4					<1.6	2.8
02	300	3.4					<1.5	2.8
03	300	3.4					<1.4	2.8
04	300	3.5					<2.0	2.85
05	300	3.4					<1.9	2.8
06	260	4.1			---	<1.4		3.1
07	230	5.7	230	---	120	2.0		3.3
08	240	6.6	230	3.8	120	2.4	2.4	3.4
09	250	7.5	220	4.2	110	2.6	3.1	3.3
10	250	8.1	220	4.2	110	2.8	3.1	3.3
11	250	8.6	210	(4.3)	110	2.8	3.6	3.3
12	250	8.4	220	---	110	2.9	3.2	3.3
13	250	8.0	220	4.1	110	2.8	3.0	3.3
14	240	7.7	230	---	110	2.5	2.7	3.4
15	230	7.6	230	---	110	2.4	2.4	3.4
16	220	6.9	---	---	110	2.1		3.4
17	220	5.9			---	---	1.4	3.4
18	220	4.9					2.4	3.3
19	230	4.0					2.4	3.3
20	240	3.5					2.2	3.2
21	250	3.4					<1.5	3.1
22	260	3.2					<1.4	3.0
23	270	3.2					<1.4	2.9

Time: 180.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 7

Graz, Austria (47.1°N, 15.5°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.0						
01	300	4.0						
02	300	4.0						
03	300	3.9						
04	300	3.8						
05	250	3.8						
06	250	3.8						
07	230	6.0						
08	220	7.1	---					
09	230	7.3	210	---			3.9	
10	240	8.0	200	(4.0)			4.0	
11	240	8.4	200	(4.1)			3.8	
12	240	8.7	200	(4.3)				
13	240	8.5	200	(4.1)				
14	240	8.4	205	---				
15	240	8.6	230					
16	230	8.4						
17	220	7.6						
18	235	7.0						
19	240	5.6						
20	240	5.0						
21	260	4.2						
22	290	4.1						
23	300	4.0						

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 8

Ft. Monmouth, New Jersey (40.3°N, 74.1°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.2					<1.7	2.9
01	270	4.0					<1.7	3.0
02	270	3.8					<1.7	3.0
03	250	3.4					<1.7	3.0
04	250	2.9					<1.7	3.0
05	270	(2.7)					<1.7	3.1
06	250	3.8					<1.7	3.2
07	230	6.0	---	---	120	(2.1)		3.5
08	230	7.3	220	---	120	2.6	2.7	3.4
09	250	7.5	210	(4.2)	110	(2.9)	3.0	3.3
10	250	8.0	200	(4.2)	110	(3.1)		3.3
11	260	8.2	200	(4.5)	110	(3.2)	3.2	3.2
12	270	8.6	200	(4.4)	110	(3.2)		3.2
13	270	9.0	220	(4.5)	110	3.1		3.1
14	270	9.1	220	(4.3)	110	(3.0)		3.1
15	250	9.0	230	(3.9)	120	(2.7)	2.7	3.2
16	240	8.7	230	---	120	2.5	2.5	3.3
17	220	8.1			---	<1.7	<1.8	3.3
18	220	6.7					<1.7	3.2
19	230	5.8					<1.7	3.1
20	250	5.2					<1.7	3.1
21	260	4.5					<1.7	3.0
22	270	4.4					<1.7	2.9
23	270	4.2					<1.7	3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 9

White Sands, New Mexico (32.3°N, 106.5°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.8					<2.0	2.9
01	290	3.8					2.4	2.9
02	280	3.9					<1.7	2.9
03	280	3.8					<2.0	2.9
04	280	3.8					<1.8	2.9
05	280	3.6					<1.7	2.9
06	270	4.2	---	---	---	---	2.4	3.0
07	240	6.6	---	---	120	2.2	4.0	3.4
08	250	7.8	220	---	110	2.6	4.2	3.3
09	260	8.0	210	4.2	110	2.8	4.9	3.3
10	270	8.4	210	(4.5)	110	(3.1)	6.2	3.2
11	280	9.0	200	(4.6)	110	3.4	4.8	3.0
12	290	9.8	210	(4.6)	110	3.4	4.8	3.0
13	280	10.2	220	4.6	110	3.4	3.2	3.0
14	280	10.0	230	(4.5)	110	3.2	3.4	3.0
15	270	9.8	230	(4.2)	110	2.9	4.0	3.1
16	250	9.5	230	---	120	(2.5)	3.6	3.2
17	230	8.5	---	---	---	---	3.3	3.3
18	220	6.7					2.7	3.4
19	220	4.4					2.5	3.2
20	260	3.8					<2.3	3.0
21	280	3.7					<1.8	2.9
22	290	3.8					<2.0	2.9
23	290	3.8					<2.0	2.9

Time: 105.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 10

Okinawa I. (26.3°N, 127.8°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	5.9					1.7	3.0
01	270	5.2					1.9	3.0
02	260	4.8					<1.8	3.05
03	250	4.7					<1.7	3.1
04	230	4.1					<1.7	3.4
05	240	3.6					<1.6	3.3
06	250	3.4					<1.7	3.1
07	230	6.6	---	---	130	>1.9		3.6
08	230	7.6	220	---	110	(2.6)	3.0	3.5
09	250	8.4	220	---	110	(3.0)	3.6	3.4
10	270	10.2	220	(5.0)	110	---	3.6	3.2
11	270	11.0	210	(5.0)	---	---	<3.8	3.2
12	280	11.8	210	(5.2)	---	---	3.8	3.1
13	300	12.9	210	(5.3)	---	---	<3.7	3.0
14	290	(13.7)	230	(5.4)	110	---	<3.6	3.1
15	270	13.9	240	(5.3)	110	---	3.6	3.2
16	250	13.4	240	(4.9)	110	>3.0	3.5	3.2
17	240	>12.5	240	(4.0)	110	(2.4)	3.7	3.25
18	230	>12.5	---	---			3.2	3.4
19	210	10.0					>3.2	(3.3)
20	230	>9.0					3.8	3.1
21	230	>8.2					2.4	3.05
22	240	7.0					2.4	(3.1)
23	270	6.2					<1.9	(3.1)

Time: 135.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 11

Formosa, China (25.0°N, 121.5°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	7.4					<2.2	2.9
01	260	6.4					<2.2	3.0
02	250	5.8					<2.0	3.0
03	260	5.4					2.4	3.25
04	230	4.1					<1.8	3.4
05	260	3.1					1.9	3.1
06	260	4.9			---	<1.8	<1.9	3.1
07	240	7.6	---	---	120	2.2	2.8	3.55
08	240	8.0	230	4.1	120	2.9	3.6	3.3
09	260	9.7	230	4.3	120	3.2	4.0	3.2
10	280	11.2	230	4.8	120	3.4	4.1	3.2
11	270	11.9	220	4.8	120	3.4	4.9	3.0
12	280	12.7	210	5.0	120	3.5	4.4	2.85
13	290	14.7	220	4.9	120	3.5	<4.2	2.9
14	280	>17.0	240	4.7	120	3.4	4.0	(3.0)
15	280	>17.0	240	4.4	120	3.1	4.2	3.0
16	250	16.7	240	4.2	120	2.8	4.5	3.2
17	240	15.1	240	3.7	---	---	4.4	3.3
18	220	14.0					3.7	3.35
19	220	12.8					2.8	3.3
20	230	11.3					2.7	3.1
21	240	9.8					2.7	3.3
22	240	8.1					2.4	2.9
23	280	8.6					2.6	2.9

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 12

Maui, Hawaii (20.8°N, 156.5°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.0					2.4	3.0
01	250	3.8					<1.4	3.1
02	240	3.3					<1.4	3.2
03	240	2.8					<1.1	3.3
04	260	2.2					<1.5	2.85
05	310	2.3					<1.2	2.8
06	300	2.8					<1.5	2.9
07	250	6.6	240	---	120	2.0	3.1	3.4
08	260	8.8	230	---	110	2.7	4.8	3.3
09	270	9.2	220	---	110	3.1	4.5	3.1
10	290	10.4	210	5.0	110	3.4	5.7	3.0
11	290	11.7	200	5.0	110	3.5	5.7	3.0
12	290	12.5	200	5.0	110	3.5	5.5	3.0
13	310	13.2	220	5.0	110	3.5	5.4	2.9
14	290	14.1	220	4.9	110	3.4	5.9	3.0
15	270	14.7	230	4.5	120	3.2	5.7	3.1
16	250	13.5	230	---	120	2.9	5.2	3.3
17	230	11.4	240	---	120	2.4	5.0	3.3
18	220	9.6			---	---	3.8	3.3
19	220	7.6					4.2	3.1
20	230	6.9					4.0	3.0
21	240	5.5					3.0	2.9
22	260	5.4					2.8	3.1
23	240	4.6					2.8	3.0

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 13

Puerto Rico, W. I. (18.5°N, 67.2°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.7					<1.9	3.0
01	250	4.9					<1.8	3.2
02	240	4.9					<1.8	3.3
03	220	4.0					<1.8	3.5
04	240	3.2					<1.7	3.1
05	280	3.0					<1.7	2.9
06	270	3.2			---	<1.7	<1.7	3.0
07	230	6.2	---	---	120	2.0		3.4
08	250	7.6	230	---	110	2.7	2.8	3.4
09	270	8.7	220	---	110	3.1		3.3
10	270	9.8	220	4.6	110	3.3		3.2
11	280	10.2	230	4.9	110	3.5		3.2
12	280	10.5	230	5.0	110	3.6		3.1
13	280	10.5	230	4.9	110	3.6	4.3	3.1
14	280	10.7	220	4.8	110	3.5	4.9	3.1
15	270	10.7	230	4.5	110	3.2	4.7	3.1
16	250	10.1	230	---	110	2.9	4.4	3.2
17	240	9.3	230	---	110	2.2	4.0	3.2
18	220	8.6			---	<1.7	2.9	3.3
19	230	7.0					3.0	3.2
20	230	5.8					2.8	3.1
21	280	5.0					2.8	2.85
22	290	5.0					2.4	2.85
23	280	4.8					<1.9	3.0

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 14

Guam I. (13.6°N, 144.9°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	9.6					2.3	3.1
01	240	9.2					1.7	3.25
02	230	9.4					<1.6	3.45
03	220	7.1					<1.4	3.5
04	230	5.2					<1.5	3.3
05	240	3.8					2.1	3.3
06	250	4.0					2.2	3.1
07	240	7.6	---	---	120	2.1	3.0	3.3
08	(260)	9.4	230	---	110	2.8	3.4	3.3
09	(280)	10.6	220	---	110	3.1	3.8	3.0
10	300	11.3	210	4.6	110	3.3	<3.8	2.6
11	300	10.4	200	4.7	110	3.3	<4.0	2.5
12	310	9.8	200	4.8	110	3.3	<4.0	2.5
13	300	10.3	200	4.8	110	3.2	<3.9	2.5
14	300	11.1	200	4.8	110	3.2	3.8	2.7
15	300	12.4	210	---	110	3.2	3.9	2.8
16	(290)	12.7	220	---	120	2.9	3.8	3.0
17	250	12.7	240	---	120	2.2	3.3	3.0
18	260	12.6					2.5	2.9
19	290	12.0					<1.6	2.8
20	270	11.4					<1.8	3.0
21	240	10.1					2.2	3.0
22	240	9.9					2.2	3.1
23	240	9.8					2.4	3.1

Time: 150.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

Panama Canal Zone (9.4°N, 79.9°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	4.5					2.1	3.3
01	230	4.0					2.4	3.5
02	220	3.3					2.3	3.5
03	250	2.5					3.1	3.0
04	270	2.6					2.3	2.9
05	300	2.6					3.1	2.8
06	280	3.7					3.2	2.9
07	240	6.8	240	---	120	2.3	3.9	3.4
08	270	8.8	230	---	110	2.9	4.0	3.2
09	280	9.9	220	4.9	110	3.2	4.0	3.1
10	290	11.2	220	5.0	110	3.5	4.8	3.1
11	300	11.8	210	5.2	110	3.6	5.0	3.0
12	300	12.0	200	5.2	110	3.7	5.2	3.0
13	290	12.7	210	5.0	110	3.7	5.1	3.1
14	280	12.3	220	4.9	110	3.5	5.1	3.1
15	280	11.6	210	(4.7)	110	3.3	5.1	3.0
16	280	12.0	220	(4.8)	110	2.8	5.0	3.0
17	260	11.9	240	---	120	2.4	4.7	3.2
18	230	11.3			---	---	4.4	3.3
19	230	9.6					4.3	3.3
20	220	8.3					3.5	3.4
21	220	6.2					3.1	3.1
22	260	4.9					2.1	2.9
23	260	5.2					<1.6	3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 16

Resolute Bay, Canada (74.7°N, 94.9°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	4.0					4.0	3.1
01	250	3.8						3.1
02	250	3.5					3.0	3.1
03	240	3.7			---	---	3.2	3.1
04	250	3.4			---	1.1	4.0	3.0
05	260	3.8	---	---	---	1.4	4.2	3.1
06	250	3.8	240	---	110	1.8	3.9	3.0
07	270	4.0	230	3.2	100	1.9	3.5	3.1
08	300	4.0	230	3.3	100	2.0	3.7	3.1
09	300	4.3	230	3.3	100	2.1	3.9	3.1
10	320	4.5	220	3.4	100	2.3		3.1
11	340	4.5	220	3.5	105	2.4	3.1	3.0
12	320	4.8	220	3.5	100	2.4		3.0
13	340	4.8	210	3.5	100	2.3	3.4	3.0
14	330	4.7	220	3.5	100	2.3		3.05
15	320	4.6	220	3.3	100	2.2		3.1
16	300	4.6	220	3.2	100	2.1		3.1
17	280	4.6	230	3.2	105	1.9		3.1
18	260	4.6	220	3.1	110	1.8	2.2	3.1
19	250	4.6	240	---	120	1.7	2.4	3.1
20	250	4.2			110	1.5	3.2	3.1
21	240	4.2			---	1.2	3.7	3.1
22	250	3.8			---	---	3.2	3.1
23	250	4.0			---	---	4.0	3.1

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 17

Baker Lake, Canada (64.3°N, 96.0°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.4			130	1.0	8.0	2.95
01	280	3.3			120	1.1	7.0	3.0
02	280	3.3			120	1.0	6.8	3.0
03	280	2.5			125	1.2	6.0	2.9
04	280	2.5			110	1.3	5.4	2.9
05	280	3.0	---	---	110	1.5	5.0	2.9
06	290	3.1	240	2.5	110	1.9	4.4	3.05
07	300	3.5	240	3.1	110	2.2	3.9	3.1
08	570	3.8	240	3.4	105	2.6	5.1	G
09	420	4.2	250	3.8	105	2.9	3.3	2.7
10	440	4.6	240	3.9	105	3.0	4.0	2.7
11	410	4.6	240	4.0	105	3.0	3.8	2.85
12	380	5.0	230	4.0	100	3.0	3.2	2.8
13	360	5.0	230	4.0	105	3.1	3.2	3.0
14	350	5.4	230	4.0	105	3.0		2.9
15	340	5.3	230	4.0	105	2.9		3.0
16	330	5.2	250	3.9	105	2.8	3.0	3.0
17	290	5.0	250	3.7	110	2.6	5.5	3.1
18	270	4.8	250	3.3	105	2.2	5.0	3.1
19	260	4.5	---	---	105	1.9	6.1	3.1
20	260	4.3	---	---	110	1.5	8.1	3.0
21	260	4.2	---	---	110	1.1	8.0	3.0
22	260	4.1			---	---	9.0	3.0
23	260	3.8			---	---	7.0	3.0

Time: 90.0°W.
Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 18

Churchill, Canada (58.8°N, 94.2°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	(3.5)					7.0	(3.0)
01	290	3.8					6.0	(3.0)
02	300	(3.1)					6.0	---
03	300	2.8					5.4	(2.8)
04	330	3.0			---	---	5.0	---
05	320	3.1			---	---	4.8	---
06	320	3.8			115	3.1	4.5	(3.05)
07	300	4.0	---	---	120	3.0	5.0	3.1
08	320	4.5	240	4.0	115	3.2	4.5	2.9
09	340	4.9	240	4.0	110	3.0	4.4	3.0
10	340	5.0	230	4.0	110	3.0	4.3	2.9
11	360	5.3	220	4.0	115	3.1	4.0	2.9
12	360	5.3	220	4.1	110	3.1	4.0	3.0
13	340	5.4	210	4.1	110	3.0	4.0	3.0
14	330	5.7	230	4.1	120	3.0	3.6	2.9
15	330	5.8	240	4.0	120	3.0	3.3	3.0
16	300	5.8	230	3.8	120	2.8	3.0	3.0
17	300	5.7	240	3.6	120	2.5		3.0
18	300	4.8	---	---	120	2.6	4.0	3.05
19	310	4.3			120	2.8	4.0	3.0
20	310	4.2			120	2.6	7.0	(2.8)
21	300	3.9			120	2.8	7.0	---
22	300	3.8			---	---	7.0	(2.9)
23	270	(3.5)			---	---	8.5	(3.0)

Time: 90.0°W.
Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 19

De Bilt, Holland (52.1°N, 5.2°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.5						2.7
01	300	3.4						2.7
02	290	3.2						2.6
03	290	3.2						2.6
04	280	3.0						2.8
05	250	3.1					2.0	3.0
06	250	4.0	230	2.7	120	1.8	2.2	3.2
07	260	4.6	220	3.6	115	2.3	2.8	3.2
08	300	5.0	210	4.0	110	2.7	3.2	3.2
09	300	5.3	220	4.2	105	2.9	3.2	3.2
10	300	6.0	210	4.3	105	3.0	3.3	3.2
11	295	5.8	220	4.4	105	3.3	3.4	3.2
12	290	6.0	220	4.4	105	3.2		3.2
13	290	6.0	220	4.4	105	3.0	3.0	3.2
14	275	5.9	215	4.1	105	2.9	3.1	3.25
15	270	6.0	220	4.0	105	2.8	3.1	3.2
16	260	5.9	230	3.7	115	2.5	2.9	3.2
17	250	6.1	230	2.8	120	2.1	2.3	3.2
18	230	6.1			---	E	2.1	3.2
19	230	5.9					2.0	3.1
20	230	5.2					2.1	3.1
21	240	4.6						3.0
22	250	4.1					2.0	2.9
23	280	3.8					2.0	2.8

Time: 0.0°.
Sweep: 0.8 Mc to 20.0 Mc in 20 seconds.

Table 20

Winnipeg, Canada (49.9°N, 97.4°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	2.5						3.0
01	(330)	(2.1)					2.9	(2.8)
02	340	(2.2)					3.1	---
03	320	(2.4)					2.9	(2.85)
04	320	(2.7)					3.0	(2.8)
05	300	2.6					3.0	(2.9)
06	280	2.9			---	1.8		3.0
07	270	3.8	230	3.4	120	2.0		3.1
08	340	4.3	220	3.8	110	2.5		3.1
09	360	4.9	220	4.0	110	2.8		3.0
10	340	5.3	210	4.2	105	3.0	3.1	3.05
11	330	5.4	210	4.2	105	3.2	3.2	3.1
12	340	5.8	200	4.4	100	3.2	3.2	3.1
13	340	5.8	210	4.4	105	3.2	3.3	3.1
14	320	6.0	220	4.3	110	3.2	3.2	3.1
15	310	6.0	220	4.1	110	3.0		3.1
16	290	6.0	220	4.0	110	2.8		3.2
17	280	5.9	230	3.9	120	2.4		3.2
18	260	5.8	240	3.2	120	2.0		3.3
19	240	5.5			---	1.8		3.2
20	250	4.8						3.15
21	250	3.9						3.1
22	280	3.0						3.0
23	280	2.8						2.95

Time: 90.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 16 seconds.

Table 21

Schwarzenburg, Switzerland (46.8°N, 7.3°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.0						3.2
01	285	3.6						3.2
02	280	3.6						3.15
03	290	3.4						3.2
04	280	3.4						3.2
05	250	3.2						3.3
06	210	3.5			---	---		3.6
07	200	4.4	---	---	100	2.0		3.8
08	200	5.4	200	4.0	100	2.5		3.8
09	220	5.6	200	4.1	100	3.0		3.8
10	220	6.0	200	4.3	100	3.0		3.75
11	240	6.6	200	4.4	100	3.1		3.8
12	250	6.6	200	4.4	100	3.2		3.6
13	260	6.6	200	4.4	100	3.1		3.6
14	230	6.8	200	4.2	100	3.0		3.6
15	200	6.5	200	4.4	100	3.0		3.6
16	200	6.5	200	4.4	100	2.8		3.6
17	200	6.5			100	2.5		3.6
18	200	7.0			100	2.2		3.7
19	200	6.6			---	---		3.6
20	200	6.0						3.6
21	200	5.4						3.6
22	210	4.8						3.5
23	245	4.0						3.4

Time: 15.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 22

Ottawa, Canada (45.4°N, 75.9°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	2.9						2.9
01	300	2.6						3.0
02	300	2.4						2.9
03	340	2.3						2.9
04	320	2.2						3.0
05	300	2.3						3.0
06	250	3.4	250	---	120	1.9		3.3
07	270	4.5	230	3.5	115	2.3		3.3
08	290	5.2	220	3.9	110	2.8		3.3
09	300	5.6	220	4.2	110	3.0	3.1	3.2
10	300	6.0	210	4.3	105	3.2	3.3	3.1
11	320	6.2	210	4.5	105	3.3	3.4	3.05
12	320	6.4	220	4.6	105	3.4	3.4	3.1
13	310	6.4	220	4.6	105	3.3	3.3	3.1
14	310	6.3	220	4.4	105	3.2	3.2	3.1
15	300	6.2	220	4.2	110	3.0		3.2
16	280	6.3	230	3.8	110	2.8		3.1
17	260	6.4	240	3.3	120	2.3		3.2
18	240	6.2	240	---	130	1.9		3.2
19	240	6.0			---	---		3.1
20	250	5.2						3.0
21	260	4.4						3.0
22	270	3.7						2.9
23	280	3.1						2.9

Time: 75.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 15 seconds.

Table 23

Leopoldville, Belgian Congo (4.4°S, 15.2°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	220	5.1						2.3
01	225	4.4					1.5	2.2
02	260	4.3					1.4	2.3
03	240	3.7					1.6	2.5
04	230	3.3					1.7	2.7
05	240	5.0			130	2.0	2.6	2.7
06	250	7.1	230	---	120	2.4	3.1	2.8
07	270	7.6	225	---	110	3.0	4.0	2.6
08	290	8.2	220	4.7	110	3.3	4.5	2.45
09	300	8.9	210	4.7	110	3.5	4.9	2.3
10	310	9.3	205	4.8	110	3.6	4.8	2.2
11	320	9.8	200	4.8	110	3.6	4.5	2.1
12	360	10.2	200	4.8	110	3.6	4.6	2.0
13	370	10.8	230	4.8	110	3.5	4.5	2.0
14	350	11.4	240	4.7	110	3.2	4.2	2.1
15	320	12.0	230	---	115	2.8	3.8	2.1
16	300	11.5	245	---	120	2.2	3.4	2.2
17	260	12.7					3.0	2.3
18	260	13.2					2.4	2.3
19	240	>13.5						2.5
20	210	>13.3						2.6
21	200	10.2						2.6
22	205	8.0						2.4
23	205	6.2						2.55

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 24

Elisabethville, Belgian Congo (11.6°S, 27.5°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	300	2.4						2.2
01	300	2.5					1.6	2.2
02	280	2.6					1.7	2.2
03	260	2.7					1.7	2.3
04	250	3.8			---	1.3	2.2	2.5
05	240	6.6	235	---	115	2.2	2.2	2.7
06	260	7.1	225	---	110	2.8		2.7
07	270	7.7	220	4.6	110	3.2	3.6	2.5
08	280	8.6	215	4.7	105	3.4	4.0	2.4
09	270	8.9	210	4.9	105	3.6	3.8	2.5
10	280	8.2	205	4.8	105	3.6	4.6	2.4
11	300	8.0	200	4.8	105	3.6	4.3	2.3
12	315	8.2	195	4.7	110	3.4	4.5	2.2
13	305	8.4	215	4.6	110	3.2	4.0	2.2
14	300	8.8	230	---	110	2.9	3.8	2.2
15	280	9.2	240	---	115	2.3	3.1	2.2
16	250	9.4					2.6	2.3
17	240	9.2					2.3	2.3
18	235	8.8					2.6	2.4
19	225	7.6					1.5	2.6
20	225	6.4					1.5	2.4
21	240	5.6						2.4
22	220	5.4						2.6
23	210	3.6						2.6

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 25

Buenos Aires, Argentina (34.5°S, 58.5°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	4.6						2.9
01	300	4.7						2.9
02	270	5.0						3.0
03	220	5.3						3.4
04	220	3.7						3.2
05	280	3.7						3.0
06	230	4.8						3.4
07	220	5.8	---	---	---	---		3.5
08	250	6.4	220	---	110	2.8	2.8	3.5
09	270	6.7	210	---	---	---	3.3	3.4
10	290	7.6	200	---	---	---		3.1
11	280	8.5	200	4.5	---	---	4.0	3.2
12	280	9.6	200	---	---	---	3.9	3.2
13	280	10.7	200	---	---	---	3.8	3.1
14	270	10.6	200	---	---	---	3.7	3.3
15	260	9.7	210	---	---	---	3.6	3.4
16	250	9.2	220	---	---	---	3.2	3.4
17	230	8.6	---	---				3.4
18	210	7.1						3.5
19	220	5.5						3.3
20	260	5.4						3.0
21	270	5.2						3.0
22	280	5.0						3.0
23	320	4.5						2.9

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 26

Resolute Bay, Canada (74.7°N, 94.9°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.2	---	---	110	1.7		3.0
01	270	4.0	---	---	125	1.6	2.0	3.1
02	270	4.2	---	---	120	1.7		3.1
03	270	4.0	270	2.8	115	1.7		3.1
04	280	4.0	250	3.0	110	1.8	3.5	3.2
05	310	4.1	240	3.1	110	2.0	3.3	3.2
06	320	4.3	240	3.3	110	2.2		3.0
07	330	4.3	230	3.4	110	2.3	3.1	3.1
08	360	4.3	230	3.6	110	2.4	4.2	2.9
09	380	4.5	230	3.8	110	2.6		2.8
10	400	4.8	220	3.8	110	2.7		3.0
11	430	4.6	220	3.8	110	2.8	4.0	2.8
12	400	4.8	220	3.8	110	2.8		2.9
13	390	4.6	220	3.9	110	2.8		2.9
14	410	4.6	210	3.9	110	2.8		2.85
15	370	4.8	220	3.7	110	2.7		2.9
16	380	4.8	220	3.7	110	2.5		2.9
17	350	4.7	220	3.6	110	2.4		3.0
18	330	4.7	220	3.4	110	2.2		3.0
19	300	4.7	230	3.2	110	2.0		3.0
20	280	4.5	240	3.2	110	2.0		3.0
21	270	4.4	250	3.0	110	1.9	4.0	3.0
22	270	4.3	260	---	110	1.9	2.0	3.0
23	270	4.3	240	---	120	1.7		3.1

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 27

Kiruna, Sweden (67.8°N, 20.3°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	295	3.2					3.1	3.1
01	295	3.1					2.1	3.1
02	295	3.1					<1.8	3.2
03	290	3.2	---	---	---	---	<1.9	3.1
04	300	3.3	---	3.0	---	1.9		3.1
05	310	3.8	245	3.2	120	2.0		3.0
06	330	4.0	220	3.3	120	2.3		3.0
07	360	4.2	230	3.7	110	2.7		3.1
08	375	4.8	230	3.8	110	2.8		3.1
09	350	5.1	220	3.9	110	2.9		3.05
10	310	5.0	210	3.9	110	2.9		3.1
11	330	5.0	210	4.0	110	3.0		3.2
12	335	5.0	210	4.0	110	3.0		3.1
13	330	5.0	210	3.9	110	3.0		3.25
14	330	4.9	220	3.9	110	3.0		3.2
15	305	4.8	210	3.8	110	2.8		3.2
16	300	4.9	230	3.5	115	2.7		3.2
17	280	4.8	240	3.3	120	2.2		3.3
18	270	4.8	240	3.2	130	2.0		3.25
19	260	4.8	250	3.1	130	2.0		3.3
20	260	4.5					<1.8	3.2
21	260	4.1					<1.9	3.2
22	280	3.8					<2.2	3.1
23	290	3.4					3.0	3.0

Time: 15.0°E.
Sweep: 0.8 Mc to 15.0 Mc in 30 seconds.

Table 28

Reykjavik, Iceland (64.1°N, 21.8°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(300)	(3.4)					(3.8)	---
01	(300)	(3.2)					(4.0)	---
02	(290)	(3.2)					3.9	---
03	(290)	(2.8)					3.9	(2.9)
04	300	2.8			---	---	<2.1	3.0
05	270	3.1	---	---	---	---	<1.7	3.1
06	G	3.7	240	3.4	110	---		3.0
07	360	4.0	220	3.6	100	---	<2.5	3.1
08	320	4.4	210	3.9	110	---		3.2
09	350	4.6	210	3.9	100	2.7		3.05
10	340	4.7	200	4.0	100	(2.7)		3.2
11	340	4.9	200	4.0	110	(2.8)	<3.0	3.1
12	350	4.9	200	4.1	110	---		3.0
13	340	4.9	200	4.1	110	(2.7)		3.1
14	340	4.9	200	4.1	110	(2.7)		3.05
15	340	4.9	200	4.0	100	(2.7)		3.0
16	320	5.0	210	4.0	100	2.6	<3.0	3.1
17	320	5.0	220	3.9	110	2.5	<3.2	3.05
18	320	4.8	230	3.6	110	---	2.8	3.1
19	280	5.0	230	(3.4)	110	---	<3.0	3.1
20	260	(4.5)			---	---	3.4	3.15
21	270	(4.4)			---	---	3.9	(3.0)
22	300	(4.0)					4.2	---
23	(300)	(3.8)					4.2	---

Time: 15.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 29

Lindau/Harz, Germany (51.6°N, 10.1°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.2					3.1	3.0
01	260	4.1					2.8	3.0
02	255	3.7					2.9	3.0
03	255	3.5	---	---			2.8	3.0
04	265	3.2	---	---			2.9	3.0
05	255	3.4	250	---	---	E	3.2	3.1
06	275	4.2	240	---	110	1.8	3.6	3.3
07	300	4.9	215	3.7	100	2.3	4.3	3.3
08	300	5.2	205	4.0	100	2.7	4.6	3.3
09	300	5.7	205	4.2	100	2.9	4.4	3.2
10	300	5.8	200	4.3	100	3.0	4.5	3.3
11	300	5.8	195	4.4	100	3.0	4.4	3.25
12	315	5.6	200	4.5	100	3.2	4.4	3.2
13	305	5.7	200	4.5	100	3.2	4.0	3.2
14	325	5.4	200	4.4	100	3.2	4.2	3.2
15	325	5.5	200	4.4	100	3.2	4.0	3.2
16	300	5.4	205	4.2	100	3.0	3.8	3.2
17	300	5.3	215	4.0	100	2.6	4.0	3.2
18	290	5.6	230	3.8	100	2.2	4.1	3.2
19	265	6.3	240	---	115	1.8	4.6	3.1
20	240	7.0					4.5	3.2
21	230	6.7					3.7	3.2
22	235	5.8					3.5	3.2
23	240	5.0					3.1	3.15

Time: 15.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 8 minutes.

Table 30

Ottawa, Canada (45.4°N, 75.9°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.0						3.0
01	290	2.6						3.0
02	310	2.2					2.8	2.95
03	300	2.0					3.0	3.0
04	320	2.0					2.8	2.9
05	280	2.6	---	---	130	1.8		3.0
06	270	3.6	230	3.2	120	2.0		3.2
07	320	4.4	220	3.6	110	2.6	4.0	3.2
08	320	4.8	230	4.0	110	3.0	3.8	3.1
09	340	5.0	220	4.2	105	3.2	4.3	3.1
10	370	5.2	210	4.3	105	3.3	4.1	3.0
11	380	5.2	210	4.4	105	3.5	3.8	3.0
12	370	5.2	210	4.4	105	3.6	3.9	3.0
13	390	5.2	220	4.4	105	3.5	3.6	2.9
14	370	5.3	230	4.4	105	3.3	3.4	3.0
15	360	5.2	220	4.3	105	3.2	3.2	3.0
16	350	5.3	220	4.1	110	3.0		3.0
17	310	5.5	230	3.8	110	2.7		3.0
18	280	5.6	240	3.2	120	2.2	3.0	3.1
19	250	5.9	260	---	135	1.8	2.1	3.1
20	240	5.9					3.2	3.05
21	240	5.2					2.8	3.1
22	250	4.3						3.0
23	270	3.4						3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 15 seconds.

Table 31

Wakkanai, Japan (45.4°N, 141.7°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.0					4.5	
01	280	4.0					4.0	
02	300	(4.0)					3.6	
03	280	(4.0)					3.5	
04	280	(4.0)					3.5	
05	270	4.3					3.5	
06	290	5.3					5.3	
07	300	5.8					5.9	
08	290	5.8					6.0	
09	300	5.6					6.2	
10	320	5.7					5.8	
11	360	5.6					6.0	
12	350	5.6					6.5	
13	350	5.6					6.0	
14	340	5.5					5.3	
15	340	5.3					4.9	
16	320	5.4					5.3	
17	310	5.6					6.0	
18	300	5.5					5.8	
19	280	6.5					6.4	
20	260	6.6					5.3	
21	260	6.2					5.4	
22	270	5.3					4.8	
23	270	4.5					5.0	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 32

Akita, Japan (39.7°N, 140.1°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.2					5.5	
01	310	4.2					4.5	
02	310	4.2					4.2	
03	300	4.0					4.1	
04	290	3.8					4.0	
05	270	4.0					3.4	
06	280	5.1					4.4	
07	290	6.0					5.0	
08	290	6.0					7.0	
09	300	6.2					7.0	
10	340	5.6					7.2	
11	360	5.8					6.5	
12	370	5.8					6.6	
13	350	6.0					5.2	
14	350	5.9					6.0	
15	340	5.8					4.9	
16	320	6.0					4.8	
17	320	5.7					4.8	
18	290	6.0					5.2	
19	290	6.7					5.5	
20	270	6.6					6.6	
21	270	6.2					6.4	
22	290	5.4					6.5	
23	290	4.5					6.5	

Time: 135.0°E.
Sweep: 0.85 Mc to 22.0 Mc in 2 minutes.

Table 33

Tokyo, Japan (35.7°N, 139.5°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.6					5.0	2.9
01	300	4.5					4.3	2.9
02	280	4.5					3.6	2.9
03	260	4.4					3.4	3.0
04	260	4.2					3.1	3.1
05	250	4.2					3.5	3.1
06	270	5.4	230	3.6	120	2.0	3.8	3.2
07	260	6.4	220	4.0	110	2.6	5.1	3.2
08	280	6.2	230	4.2	110	3.0	5.8	3.2
09	300	6.2	210	4.4	110	3.0	7.0	3.2
10	320	6.0	220	4.5	110	3.3	7.0	3.1
11	350	5.8	220	4.6	110	3.3	7.0	2.9
12	350	6.2	210	4.6	110	3.4	5.2	3.0
13	340	6.2	230	4.5	110	3.5	5.4	3.0
14	320	6.5	230	4.5	110	3.4	5.0	3.0
15	320	6.2	230	4.4	110	3.2	5.0	3.0
16	290	6.5	230	4.2	110	2.8	5.0	3.1
17	300	6.2	240	3.9	110	2.4	5.0	3.0
18	280	6.3	250	---	---	---	5.4	3.0
19	260	6.8					5.6	3.1
20	240	6.5					7.0	3.1
21	250	5.9					7.0	3.0
22	260	5.4					6.6	3.0
23	290	4.6					5.0	3.0

Time: 135.0°E.
Sweep: 1.0 Mc to 17.2 Mc in 2 minutes.

Table 34

Yamagawa, Japan (31.2°N, 130.6°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.0					5.8	
01	300	4.5					5.8	
02	290	4.6					3.8	
03	270	4.8					3.6	
04	260	3.8					3.2	
05	260	3.4					3.4	
06	250	4.8					3.2	
07	260	6.0					3.8	
08	250	6.4					5.9	
09	290	6.2					5.9	
10	330	6.1					6.3	
11	350	6.2					6.5	
12	340	6.5					5.9	
13	340	7.2					5.8	
14	330	7.3					5.9	
15	320	7.5					5.6	
16	300	7.4					5.1	
17	300	7.1					4.7	
18	290	7.5					4.0	
19	260	7.8					4.0	
20	250	7.3					5.5	
21	250	6.4					5.4	
22	290	5.5					5.9	
23	300	5.3					5.9	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 35

Baguio, P. I. (16.4°N, 120.6°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	4.8					2.0	2.9
01	280	4.8					2.0	3.1
02	240	4.5					2.2	3.3
03	220	3.8					2.0	3.3
04	220	3.2					2.1	3.4
05	240	2.8					3.5	3.3
06	230	4.6			---	---	3.0	3.3
07	210	6.1	---	---	100	2.3	6.0	3.3
08	280	6.8	200	---	100	2.8	7.1	3.0
09	340	7.5	200	4.4	100	3.1	7.0	2.7
10	370	8.2	190	4.4	100	3.4	7.2	2.5
11	400	8.5	190	4.5	100	---	7.0	2.4
12	400	8.8	190	4.6	100	3.6	7.0	2.45
13	380	9.0	200	4.5	100	3.5	6.0	2.5
14	370	9.3	200	4.4	100	3.4	5.2	2.6
15	340	10.0	200	4.3	100	3.2	5.1	2.7
16	310	10.6	200	4.0	100	3.0	5.2	2.95
17	280	11.0	220	---	110	2.4	4.7	3.1
18	240	10.6					4.9	3.2
19	230	10.0					4.0	3.2
20	230	7.9					3.0	3.1
21	250	6.7					2.5	3.0
22	280	5.8					2.0	2.9
23	320	5.0					2.0	2.8

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 36

Leopoldville, Belgian Congo (4.4°S, 15.2°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	215	4.0						2.55
01	250	3.0					1.9	2.3
02	260	3.1					2.2	2.3
03	260	2.7					2.5	2.4
04	240	2.6					2.4	2.55
05	250	3.6	---	---			2.3	2.6
06	255	6.1	230	---	120	2.2	2.9	2.8
07	275	7.1	220	4.2	110	2.9	3.8	2.7
08	285	7.6	210	4.5	110	3.2	4.1	2.6
09	280	8.2	210	4.6	110	3.4	4.5	2.6
10	290	8.0	200	4.6	105	3.5	4.3	2.5
11	305	8.9	200	4.6	105	3.5	4.6	2.3
12	305	9.8	190	4.5	105	3.5	4.3	2.3
13	300	10.4	190	4.5	110	3.4	3.9	2.3
14	310	10.4	230	4.4	110	3.2	4.0	2.2
15	300	10.4	250	4.1	115	2.7	3.5	2.2
16	270	10.5	240	---	120	2.2	3.3	2.35
17	245	9.5			---	---	3.0	2.4
18	235	9.4					3.0	2.6
19	210	9.0					2.6	2.7
20	205	7.5					2.4	2.8
21	200	5.4					1.7	2.65
22	220	4.2						2.4
23	220	4.6						2.65

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 37

Elisabethville, Belgian Congo (11.6°S, 27.5°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	280	2.0					2.4	2.45
01	330	2.0					2.9	2.25
02	280	2.0					2.0	2.3
03	265	2.0					1.8	2.5
04	255	2.4					1.9	2.4
05	245	5.5	235	---	20	1.9		2.7
06	255	6.6	220	---	110	2.7	3.4	2.7
07	265	6.9	220	4.2	110	3.0	3.8	2.7
08	270	7.2	210	4.5	110	3.2	4.1	2.6
09	280	7.0	210	4.6	105	3.4	4.2	2.6
10	290	6.9	210	4.7	105	3.5	4.2	2.5
11	280	6.6	205	4.6	105	3.3	4.2	2.6
12	280	6.0	200	4.4	105	3.2	4.2	2.6
13	300	5.9	250	4.1	110	3.0	4.3	2.4
14	295	6.3	220	---	110	2.8	4.0	2.4
15	265	6.4	240	---	115	2.3	3.7	2.4
16	240	6.1					3.2	2.5
17	240	5.9					3.3	2.4
18	220	5.5					2.9	2.6
19	225	3.8					2.3	2.6
20	235	3.0					2.0	2.6
21	235	2.8					1.7	2.6
22	225	2.6					1.4	2.6
23	250	2.2						2.5

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 38

Watheroo, W. Australia (30.3°S, 115.9°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.2						3.1
01	250	3.2						3.1
02	250	3.5						3.1
03	240	3.6						3.2
04	240	3.6						3.2
05	250	3.5						3.1
06	240	3.0						3.1
07	240	4.2	---	---		1.7		3.4
08	240	5.4	240	3.2		2.3		3.5
09	260	5.8	220	4.0		2.7		3.4
10	280	6.2	230	4.3		3.0		3.4
11	280	6.4	220	4.4		3.2		3.4
12	290	6.4	220	4.4		3.3	3.7	3.4
13	280	6.5	220	4.4		3.2	3.8	3.3
14	290	6.3	210	4.4		3.1	3.6	3.3
15	280	6.5	210	4.2		2.9	3.2	3.3
16	260	6.0	240	3.8		2.7	2.7	3.4
17	240	5.5	240	2.9		2.1		3.4
18	230	4.8				1.4	1.9	3.4
19	230	4.1					2.4	3.3
20	240	3.4						3.2
21	250	3.1						3.1
22	250	3.2						3.1
23	250	3.1						3.0

Time: 120.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 45 seconds.

Table 39

Buenos Aires, Argentina (34.5°S, 58.5°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	2.8						3.0
01	300	2.8						3.0
02	270	3.0						3.1
03	260	3.0						3.4
04	220	3.0						3.6
05	250	2.4						3.3
06	280	2.5						3.25
07	220	4.3						3.6
08	230	5.1	210	---	---	---	2.8	3.5
09	260	5.6	210	---	110	(3.0)	3.2	3.5
10	280	6.3	200	---	110	3.2	3.8	3.4
11	270	7.0	200	4.2	100	(3.3)	4.0	3.4
12	260	7.4	(200)	4.2	100	3.3	4.0	3.4
13	260	7.2	200	4.1	110	3.3	4.0	3.4
14	260	7.8	200	4.1	100	3.0	3.6	3.4
15	240	7.4	210	---	---	---	3.0	3.5
16	220	6.4	210	---	---	---		3.5
17	220	6.0						3.5
18	210	5.2						3.5
19	220	4.4						3.4
20	240	4.3						3.3
21	240	3.6						3.4
22	260	3.3						3.3
23	300	3.0						3.0

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 40

Kiruna, Sweden (67.8°N, 20.3°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.8					2.0	3.1
01	295	3.8			---	---	<3.0	3.2
02	300	3.8	---	---	---	---	2.8	3.15
03	310	3.9	250	2.9	140	1.9	2.0	3.1
04	335	4.1	235	3.1	130	2.0		3.1
05	370	4.2	225	3.3	120	2.2		3.0
06	380	4.3	220	3.6	110	2.4		2.95
07	400	4.8	210	3.8	110	2.7		3.0
08	400	4.8	215	3.8	110	2.8	2.9	3.0
09	380	4.8	210	3.9	110	2.9		3.0
10	390	4.9	210	4.0	110	3.0		3.0
11	400	4.9	200	4.0	110	3.0		3.0
12	(400)	5.0	200	4.0	110	3.0		3.0
13	380	4.9	200	4.0	110	3.1		3.05
14	360	4.9	200	4.0	110	3.0		3.1
15	365	4.9	210	4.0	110	2.9		3.1
16	350	4.8	210	3.8	110	2.8		3.1
17	345	4.7	230	3.8	110	2.7		3.1
18	310	4.7	230	3.5	120	2.4		3.2
19	300	4.7	240	3.2	130	2.1		3.2
20	280	4.6	250	3.0	130	2.0	2.2	3.3
21	270	4.1	250	2.8	---	1.9	<2.0	3.2
22	280	4.2	---	---	---	---	3.2	3.1
23	280	3.9					2.2	3.2

Time: 15.0°E.
Sweep: 0.8 Mc to 15.0 Mc in 30 seconds.

Table 41

Talara, Peru (4.6°S, 81.3°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	5.1					<1.5	3.4
01	220	4.6					<1.4	3.35
02	240	3.9					<1.3	3.2
03	240	3.5					<1.2	3.2
04	240	3.4					<1.2	3.3
05	240	3.0					<1.3	3.35
06	250	2.5					<1.6	3.2
07	240	4.2	---	---	130	1.7	2.3	3.2
08	(220)	5.4	210	---	110	2.5	4.4	3.0
09	400	6.0	200	4.2	110	3.0	4.5	2.6
10	440	6.4	200	4.3	110	3.2	4.7	2.3
11	440	6.8	200	4.4	110	3.4	4.5	2.3
12	450	7.0	190	4.5	110	3.5	4.7	2.2
13	440	7.0	200	4.5	110	3.4	5.0	2.2
14	430	7.0	200	4.4	110	3.3	4.0	2.3
15	420	7.3	200	4.3	110	3.1	4.2	2.4
16	400	7.4	200	4.2	110	2.9	4.0	2.4
17	(340)	7.9	200	---	110	2.5	4.0	2.6
18	240	7.8	230	---	120	---	2.5	2.7
19	250	7.5					<2.1	2.8
20	270	7.0					<1.8	2.9
21	260	6.1					<1.6	2.95
22	260	6.0					<1.6	3.1
23	230	6.1					<1.5	3.4

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 42

Kiruna, Sweden (67.8°N, 20.3°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.2	---	---	---	---	2.2	3.0
01	330	4.0	260	2.6	---	1.8	<2.2	2.95
02	320	4.1	260	2.8	130	1.9	<2.2	2.9
03	350	4.1	240	3.0	130	2.0	2.0	2.9
04	360	4.2	230	3.2	110	2.1		2.9
05	360	4.3	210	3.3	110	2.2		2.9
06	400	4.6	210	3.6	110	2.5		2.8
07	390	4.8	220	3.8	110	2.8		2.85
08	400	4.9	220	3.9	110	2.9		2.9
09	380	5.0	210	4.0	110	2.9	<3.0	2.85
10	380	5.0	210	4.0	110	2.9	3.1	2.9
11	(360)	(5.0)	210	4.1	110	3.0		(2.9)
12	360	4.8	210	4.1	110	3.0		3.0
13	400	4.8	210	4.0	110	2.9		2.9
14	400	4.7	210	4.0	110	3.0		2.9
15	380	4.7	210	4.0	110	2.9		3.0
16	370	4.7	210	3.9	110	2.8	2.9	2.9
17	350	4.8	220	3.8	110	2.7		3.0
18	330	4.8	230	3.5	110	2.3	2.8	3.1
19	310	4.4	240	3.2	120	2.2	<3.0	3.1
20	300	4.6	250	3.1	130	2.0		3.1
21	310	4.2	250	2.9	140	1.9	2.8	3.0
22	310	4.2	260	2.3	130	1.9	<2.5	2.9
23	300	4.1	---	---	---	1.8	2.8	2.9

Time: 15.0°E.
Sweep: 0.8 Mc to 15.0 Mc in 30 seconds.

Table 43

Johannesburg, Union of S. Africa (26.2°S, 28.1°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	<240	2.7						3.2
01	---	2.7						3.1
02	<240	2.7						3.1
03	<250	2.7						3.2
04	<230	2.6						3.2
05	---	2.5						3.2
06	<230	2.4						3.2
07	220	4.2						3.45
08	220	5.6	220	3.1	120	2.2		3.5
09	250	6.0	220	3.9	110	2.6		3.45
10	250	6.3	220	4.1	110	3.0	3.6	3.4
11	260	6.4	210	4.3	110	3.1		3.4
12	270	6.3	210	4.4	110	3.2		3.3
13	270	6.6	210	4.3	110	3.1	3.9	3.3
14	260	6.4	210	4.2	110	3.0	3.8	3.3
15	260	6.5	210	3.9	110	2.8	3.6	3.3
16	240	6.3	220	3.3	110	2.4	3.6	3.4
17	220	5.8	---	---	---	---	2.9	3.4
18	210	4.2					2.8	3.4
19	220	2.8					3.8	3.4
20	<240	2.7					2.1	3.3
21	<230	2.7					2.0	3.2
22	<240	2.9						3.25
23	230	2.9						3.2

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 44

Capetown, Union of S. Africa (34.2°S, 18.3°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	2.6						3.1
01	<270	2.6						3.0
02	270	2.7						3.0
03	<260	2.7						3.1
04	250	2.6						3.1
05	250	2.7						3.1
06	250	2.6						3.1
07	240	2.5						3.2
08	220	4.1	---	---	---	---		3.4
09	230	5.3	230	---	120	2.1		3.5
10	250	5.7	230	3.6	120	2.6		3.4
11	250	6.2	220	4.0	120	2.8		3.4
12	260	6.2	220	4.1	110	3.0		3.4
13	270	6.4	220	4.1	110	3.0		3.4
14	260	6.4	230	4.0	110	3.0	3.7	3.35
15	260	6.7	230	3.8	120	2.8	3.6	3.3
16	250	6.6	230	3.4	120	2.4	3.3	3.4
17	230	6.0	230	---	130	2.1	2.6	3.5
18	220	4.8					1.8	3.5
19	220	3.0						3.4
20	240	2.5					1.6	3.3
21	<250	2.6						3.2
22	240	2.5						3.3
23	250	2.5						3.15

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 45

Nairobi, Kenya (1.3°S, 36.8°E) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.5						3.0
01	240	4.9					1.9	3.2
02	<230	4.5					2.6	3.4
03	230	3.6					2.6	3.1
04	240	3.0					2.2	3.0
05	240	2.9					2.0	3.3
06	240	2.6					2.9	3.3
07	240	5.9	240	---	120	---	2.8	3.5
08	260	7.5	230	4.1	110	2.6	3.4	3.5
09	260	8.1	220	4.2	110	3.0	3.9	3.4
10	280	7.9	200	4.4	110	3.2	4.0	3.3
11	290	8.5	200	4.5	100	3.4		3.1
12	300	9.8	200	4.5	100	3.4		3.05
13	320	10.0	200	4.6	110	3.5		2.9
14	330	10.4	200	4.5	110	3.4		2.9
15	300	10.3	190	4.4	110	3.2	3.8	3.0
16	280	9.8	200	4.2	110	2.9	3.8	3.1
17	260	9.7	230	---	110	2.4	3.7	3.2
18	250	9.5	---	---	---	---	3.9	3.2
19	230	9.2					3.2	3.3
20	220	8.7					3.0	3.45
21	210	7.0					2.7	3.5
22	200	5.0						3.4
23	210	4.2						3.0

Time: 45.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 46

Oelhi, India (28.6°N, 77.1°E) April 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.2						3.1
01	280	3.0						3.25
02	(280)	(2.6)						(3.25)
03								
04	280	2.8						3.25
05	260	3.2						3.4
06	240	5.0						3.6
07	240	6.5						3.6
08	240	6.6						3.6
09	240	6.4						3.6
10	300	7.8						3.0
11	300	8.7						3.1
12	300	>10.0						3.1
13	280	>10.2						3.25
14	280	11.0						3.25
15	260	10.4						3.4
16	260	>10.0						3.4
17	260	8.8						3.4
18	240	8.6						3.6
19	240	7.5						3.6
20	240	4.6						3.6
21	280	3.7						3.25
22	300	3.2						3.1
23	320	3.2						3.0

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 47

Ahmedabad, India (23.0°N, 72.6°E) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	325	3.3					2.0	2.85
01	315	3.1						2.9
02	285	3.1					2.3	3.1
03	260	3.0					2.1	3.3
04	280	2.3						3.1
05	270	2.2						3.2
06	240	4.2			---	---		3.45
07	240	6.0	230	3.6	110	2.1	3.9	3.6
08	260	6.6	215	4.0	110	2.7	4.3	3.45
09	300	6.9	210	4.3	110	3.0	4.3	3.1
10	330	8.3	210	4.5	110	3.2	4.0	2.75
11	350	10.2	225	4.6	110	3.3		2.85
12	330	11.8	210	4.6	110	3.4	3.2	2.95
13	310	12.8	240	4.6	110	3.4		3.05
14	290	13.0	230	4.5	110	3.3	3.4	3.15
15	275	13.0	225	4.3	110	3.1		3.2
16	265	12.8	225	4.1	110	2.8	2.7	3.3
17	250	11.7	225	3.8	115	2.3		3.4
18	230	11.2	---	2.8	---	---	2.4	3.45
19	215	9.4					2.4	3.5
20	210	6.4					2.2	3.45
21	240	4.4						3.0
22	300	3.8						2.8
23	335	3.3					2.1	2.8

Time: 75.0°E.
Sweep: 0.6 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 48

Calcutta, India (22.9°N, 88.5°E) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	4.5						3.05
01	260	4.3					2.4	3.1
02	260	3.8					2.1	3.15
03	260	3.2						3.1
04	250	2.7						3.1
05	260	2.6						3.1
06	240	3.8	---	---	---	---		3.35
07	230	5.6	---	---	110	2.2		3.4
08	260	7.0	210	3.8	100	2.8		3.3
09	270	8.2	200	4.3	100	3.0		3.1
10	300	9.8	200	4.6	100	3.2	3.5	2.85
11	340	11.3	200	4.6	100	3.4	3.8	2.8
12	350	11.5	200	4.6	100	3.6		2.7
13	330	11.8	200	4.5	100	3.5		2.9
14	310	11.6	200	4.5	100	3.4		3.0
15	290	11.5	200	4.4	100	3.2		3.15
16	280	11.5	210	4.3	100	3.0		3.2
17	260	11.3	220	4.0	110	2.5	3.2	3.35
18	240	11.1	---	---	---	---	2.1	3.5
19	220	10.8	---	---				3.45
20	220	8.6					2.3	3.5
21	210	6.2					1.9	3.5
22	270	5.0						3.15
23	280	4.4						3.1

Time: 90.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 49

Bombay, India (19.0°N, 73.0°E) April 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06:30	270	3.8						3.35
07	300	4.5						3.1
08:30	300	5.4						3.1
09	330	5.7						2.95
10	330	6.5						2.95
11	360	7.4						2.8
12	360	8.8						2.8
13	390	9.7						2.65
14	(390)	(9.8)						(2.65)
15	---	---						---
16	(390)	(10.6)						(2.65)
17	390	9.7						2.65
18	360	8.7						2.8
19	330	7.5						2.95
20	330	6.5						2.95
21	300	5.2						3.1
22	270	4.3						3.35
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 50

Madras, India (13.0°N, 80.2°E) April 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	330	5.8						2.95
07	360	7.2						2.8
08	390	7.6						2.65
09	420	7.5						2.55
10	420	7.4						2.55
11	420	7.5						2.55
12	420	7.6						2.55
13	420	8.8						2.55
14	390	9.2						2.65
15	390	10.3						2.65
16	380	11.2						2.8
17	360	11.3						2.8
18	360	10.4						2.8
19	360	8.9						2.8
20	330	7.8						2.95
21	(330)	7.2						(2.95)
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 51

Tiruchy, India (10.8°N, 78.8°E) April 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	(390)	(5.2)						(2.65)
07	450	7.2						2.45
08	510	7.9						2.25
09	540	7.7						2.15
10	540	7.5						2.15
11	540	7.6						2.15
12	540	8.0						2.15
13	540	8.5						2.15
14	510	8.9						2.25
15	510	9.2						2.25
16	510	9.3						2.25
17	480	9.0						2.3
18	480	9.0						2.3
19	450	8.6						2.45
20	450	8.4						2.45
21	450	7.8						2.45
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 52

Nairobi, Kenya (1.3°S, 36.8°E) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	6.5						3.2
01	230	>6.7						3.35
02	220	5.4						3.4
03	<240	4.0						3.0
04	250	3.5					2.2	3.1
05	240	3.0					2.0	3.35
06	230	2.5					3.0	3.5
07	240	5.6	230	---	130	---	3.0	3.6
08	260	7.0	230	3.9	110	2.6	3.5	3.5
09	270	7.9	220	4.2	110	3.0	3.2	3.35
10	280	8.7	210	4.4	110	3.2	3.6	3.25
11	300	8.8	200	4.5	110	3.4		3.0
12	320	9.6	200	4.6	110	3.4		2.9
13	320	10.9	190	4.5	110	3.5		3.0
14	310	11.3	190	4.5	110	3.4	3.7	3.0
15	300	10.8	200	4.4	110	3.2	4.2	3.0
16	300	10.0	210	4.3	110	2.9	4.0	2.9
17	290	10.2	240	---	120	2.6	3.7	2.9
18	260	10.7	250	---	---	---	3.3	3.0
19	250	>11.0					2.8	3.15
20	240	>11.9						3.4
21	220	>11.3						3.5
22	210	>9.0						(3.5)
23	210	>8.6						3.3

Time: 45.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 53

Sao Paulo, Brazil (23.5°S, 46.5°W) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	5.3						3.0
01	260	5.5					2.9	3.1
02	240	6.0					3.2	3.3
03	220	5.6					3.9	3.5
04	240	3.8					2.7	3.3
05	280	2.8					2.4	3.2
06	240	3.6						3.4
07	220	5.7	---	---	120	2.1		3.6
08	260	6.5	220	---	100	2.6		3.4
09	280	7.3	210	4.3	100	3.0		3.3
10	290	7.7	210	4.4	100	3.1		3.2
11	320	8.3	200	4.5	100	---		3.0
12	320	9.2	200	4.5	100	---	4.3	3.0
13	320	9.9	200	4.5	100	---	4.4	3.05
14	320	10.7	200	4.4	100	3.2	4.5	3.1
15	300	11.0	210	4.2	100	3.0	4.0	3.1
16	300	11.8	220	---	100	(2.7)	3.9	3.2
17	250	11.9	230	---			4.2	3.4
18	240	12.0					4.3	3.4
19	210	10.2					3.9	3.4
20	210	7.8						3.4
21	220	6.6						3.1
22	230	5.5						3.1
23	220	5.8						3.1

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 54*

Inverness, Scotland (57.4°N, 4.2°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	340	1.8						(2.8)
01	340	(1.6)						(2.8)
02	320	1.8						(2.8)
03	300	1.5						(2.8)
04	300	1.5						2.8
05	305	(1.4)						(2.8)
06	325	1.4						2.9
07	265	2.1						3.2
08	230	3.6			130	1.7	1.7	3.4
09	235	4.2	210	2.7	125	1.9	2.4	3.5
10	250	4.6	210	3.2	120	2.2	2.3	3.5
11	260	4.9	205	3.3	115	2.2		3.4
12	260	5.1	210	3.5	110	2.3		3.4
13	260	5.3	210	3.5	110	2.3		3.5
14	260	5.3	210	3.3	115	2.2		3.5
15	250	5.3	215	3.0	120	2.1	2.4	3.5
16	230	4.9			135	1.9	2.2	3.5
17	230	4.6			(130)	(1.7)		3.3
18	235	4.1						3.2
19	255	3.6						3.2
20	265	2.8						3.1
21	290	2.2						3.0
22	310	1.8						2.9
23	325	1.6						(2.8)

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 55*

Slough, England (51.5°N, 0.6°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	2.6					2.1	2.9
01	265	2.8					2.4	2.95
02	270	2.9					2.5	2.9
03	270	2.9					2.4	2.9
04	275	2.6					2.5	2.85
05	280	2.2					2.5	2.85
06	270	1.9					2.6	3.05
07	245	2.8			(130)	(1.5)	2.6	3.15
08	230	4.4	220	2.7	130	1.7	2.6	3.4
09	240	5.0	215	3.2	120	2.1	2.6	3.5
10	250	5.4	220	3.6	115	2.4	2.6	3.45
11	255	5.8	215	3.7	115	2.6		3.4
12	245	5.9	215	3.8	115	2.7		3.45
13	250	5.8	220	3.8	115	2.6		3.4
14	245	5.8	215	3.6	115	2.5	2.6	3.45
15	245	5.8	220	3.5	120	2.0	2.6	3.4
16	235	5.4	225	3.2	125	2.0	2.6	3.45
17	220	5.0			(135)	(1.7)	2.6	3.45
18	225	4.6					2.5	3.25
19	235	4.2						3.2
20	235	3.8					2.2	3.15
21	260	3.2						3.05
22	270	2.8					1.9	2.95
23	270	2.6					2.4	2.95

Time: 0.0°.
Sweep: 0.55 Mc to 16.5 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 56*

Singapore, British Malaya (1.3°N, 103.8°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	215	3.7						3.3
01	260	3.0					1.0	(2.9)
02	265	2.8					1.8	2.9
03	270	2.4					2.0	3.0
04	290	2.1					2.9	---
05	295	2.1					2.8	(2.9)
06	275	2.4					2.8	---
07	245	5.8	235		120	2.0	3.6	3.2
08	280	7.5	220		120	2.7	5.6	3.0
09	330	7.7	210	4.3	110	3.0	5.3	2.7
10	365	8.4	200	4.5	(110)	3.3	6.0	2.3
11	400	8.6	200	4.5	110	3.5	5.3	2.1
12	400	8.2	200	4.6	110	3.5	5.5	2.1
13	395	8.3	200	4.6	110	3.5	4.3	2.1
14	390	8.4	200	4.5	110	3.4	4.0	2.2
15	360	8.5	205	4.4	110	3.2		2.3
16	(320)	8.8	205		110	2.9	3.7	2.4
17	(255)	8.7	225		115	2.4	3.5	2.5
18	255	8.6			155	1.8	2.8	2.5
19	295	8.2					3.0	2.6
20	305	7.4					2.0	2.7
21	280	7.4					1.8	2.9
22	240	8.1						3.3
23	210	6.6						3.5

Time: 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 57

Sao Paulo, Brazil (23.5°S, 46.5°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	5.6						3.1
01	260	5.6						3.1
02	240	5.3						3.2
03	250	4.5						3.2
04	260	4.2						3.2
05	240	3.9						3.2
06	210	4.5						3.6
07	220	5.3	---	---	110	2.3		3.6
08	260	5.8	210	---	100	2.8	3.2	3.3
09	310	6.4	200	4.4	100	3.2	3.6	3.1
10	320	7.2	200	4.5	100	3.5		3.0
11	360	7.6	200	4.5	100	3.5	3.8	2.9
12	350	8.4	180	4.5	100	(3.6)	3.8	2.9
13	350	8.6	190	4.5	100	---	3.8	(3.0)
14	340	9.6	180	4.4	100	---	3.6	3.0
15	320	9.9	180	4.4	100	---		3.1
16	300	10.2	200	4.2	100	2.9	3.6	3.15
17	270	10.3	210	---	100	---	3.4	3.2
18	240	10.6	230	---	---	---	3.9	3.2
19	240	10.8					2.6	3.3
20	240	8.8						3.4
21	230	8.4						3.3
22	220	7.4						3.25
23	240	6.0						3.15

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 58

Sao Paulo, Brazil (23.5°S, 46.5°W) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.6						3.2
01	260	(4.8)						(3.1)
02	260	5.0						3.2
03	260	4.1						(3.2)
04	230	3.4						(3.4)
05	230	2.8						3.3
06	210	4.5			---	---		3.6
07	220	5.4	200	---	110	(2.5)	3.9	3.5
08	280	6.0	200	4.2	100	2.8	4.2	3.2
09	340	6.6	200	4.4	100	3.1	4.0	3.0
10	360	6.8	200	4.4	100	(3.2)	4.4	2.9
11	380	7.5	180	4.5	100	---	4.0	(2.75)
12	400	8.4	180	4.5	100	---	4.0	2.8
13	380	8.7	190	4.5	100	---	4.3	2.9
14	370	9.4	180	4.4	100	---	4.0	2.9
15	320	9.7	200	4.3	100	---		(3.1)
16	300	10.2	200	4.2	100	2.9	3.6	3.15
17	270	9.9	210	---	110	2.6	4.0	3.3
18	230	9.4	---	---	---	---	3.6	3.3
19	240	8.0					2.1	3.2
20	260	7.6						3.2
21	240	6.9						3.3
22	240	6.6						3.1
23	270	6.0						3.05

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 59*

Falkland Is. (51.7°S, 57.8°W) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	285	5.5					3.1	2.8
01	285	5.2					3.2	2.9
02	280	5.0					3.0	(2.9)
03	275	4.6					1.8	(2.9)
04	285	4.4	(290)		165	1.4		2.9
05	260	5.1	255		125	1.7	2.9	3.2
06	295	5.2	235	3.7	115	2.2	3.4	3.1
07	315	5.3	(230)	3.9	110	2.4	4.6	3.1
08	345	5.4	(245)	4.1	110	2.7	5.0	3.1
09	375	5.2	(215)	4.2	105	3.0	5.8	3.0
10	375	5.4	(215)	4.3	105	3.2	6.8	(2.9)
11	360	5.9	215	4.3	105	3.3	6.8	2.9
12	320	6.4	210	4.4	105	3.3	6.0	3.0
13	335	5.9	220	4.4	105	3.3	6.0	3.1
14	340	5.6	215	4.4	105	3.3	5.4	3.1
15	345	5.4	220	4.2	105	3.1	5.6	2.9
16	330	5.4	225	4.1	110	2.9	4.8	3.1
17	310	5.7	235	4.0	115	2.7	5.0	3.1
18	290	5.6	(240)	3.7	125	2.3	4.7	3.2
19	270	5.5	(250)	(3.2)	(135)	(1.9)	4.9	3.1
20	265	5.6					3.5	3.0
21	290	6.0					3.1	2.8
22	290	6.0					3.1	2.8
23	290	5.8					3.7	2.8

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 60*

Port Lockroy (64.8°S, 63.5°W) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	7.1					1.3	(2.8)
01	270	6.8					2.3	(2.8)
02	270	6.4					2.4	2.8
03	280	6.2	(275)	(2.5)	(120)	(1.4)		2.9
04	300	6.1	255	2.9	110	1.7		2.8
05	305	5.9	240	3.2	105	1.9		2.8
06	300	5.2	230	3.4	105	2.2		3.0
07	300	5.0	230	3.6	100	2.5	4.6	3.2
08	315	4.6	220	3.8	100	2.7	4.6	3.1
09	(320)	4.5	215	3.9	100	2.8	5.2	(3.2)
10	345	4.8	220	4.0	100	2.9	5.2	3.2
11	340	5.0	220	4.1	100	3.0	5.2	3.1
12	345	5.0	215	4.2	100	3.0	5.1	(3.0)
13	360	4.9	215	4.1	100	3.0	5.0	3.1
14	350	4.9	215	4.1	100	3.0	5.0	3.1
15	340	5.0	205	4.1	100	2.9	5.6	3.0
16	325	5.0	205	4.0	100	2.8	5.2	3.1
17	325	5.0	215	3.8	100	2.7	4.2	3.1
18	330	4.9	225	3.7	100	2.4	3.4	3.1
19	315	5.0	235	3.5	105	2.1		3.0
20	300	5.2	250	3.2	105	1.9	3.2	3.1
21	300	5.6	255	(2.8)	125	1.6	3.1	(2.9)
22	290	6.0					2.5	
23	280	7.0					1.3	(2.8)

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

TABLE 61

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

h'F2 (Characteristic), Km (Unit), November (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Lang 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(280)S	(310)S	280	240	240	(280)S	260	230	240	250	250	(250)L	250	240	250	240	220	210	220	220	240	260	260	250
2	250	250	(280)A	250	230	(240)S	260	220	220	230	240	250	250	250	250	230	210	200	230	230	230	250	250	250
3	(250)A	250	250	250	250	250	240	220	230	220	240	240	L	270	230	L	220	210	210	240	250	270	280	290
4	(290)S	(320)S	320	240	240	240	< 250 S,H	220	230	240	240	240	240	250	250	250	230	220	(210)A	240	220	250	250	260
5	280	280	250	240	240	(250)S	< 370 S	240	240	230	250	250	240	250	250	240	230	210	210	220	260	250	260	270
6	(270)A	(280)A	(290)A	270	250	(250)S	(250)S	220	220	230	240	240	230	230	(240)L	230	220	210	200	230	240	(280)A	(290)S	(310)A
7	(320)A	280	(290)A	240	260	250	240	220	220	230	230	250	250	240	230	240	210	210	210	220	250	260	270	260
8	250	270	270	260	280	260	250	220	220	230	240	(270)L	260	270	250	230	220	210	240	250	280	250	250	240
9	250	260	320	280	260	[240]C	(240)S	230	220	230	240	250	(260)L	260	250	240	220	210	230	220	240	250	260	260
10	280	(310)A	(300)A	260	260	240	240	220	220	230	230	250	260	250	250	250	220	200	240	210	250	240	250	250
11	260	300	260	260	260	240	270	230	230	230	250	240	260	250	240	250	220	200	210	220	230	250	270	270
12	280	280	280	250	(270)S	(290)S	(290)S	230	220	230	240	250	260	250	250	240	230	210	200	210	240	A	A	(280)A
13	270	300	270	240	230	220	250	230	230	230	250	250	240	230	240	230	230	210	220	220	250	250	250	260
14	270	250	250	250	250	240	240	230	220	230	240	240	250	250	250	230	230	210	210	230	230	240	270	260
15	270	280	280	270	260	240	260	240	230	230	[240]C	250	250	250	240	250	230	220	220	210	240	250	290	(330)S
16	270	270	250	250	230	250	250	250	230	230	240	250	260	230	240	240	220	210	230	220	230	280	290	280
17	320	280	240	220	260	280	270	240	220	240	240	240	230	240	230	230	220	200	220	220	240	240	(240)S	(280)A
18	260	310	(310)S	280	260	240	250	240	240	230	260	250	250	280	260	250	250	210	220	210	(220)A	290	290	270
19	260	240	240	(270)S	(280)S	A	< 410 F	270	L	(350)L	(540)H	(620)S	470	L	330	(310)L	290	270	270	270	260	260	250	270
20	280	290	270	(300)S	(300)F	< 330 S	E	250	230	240	(230)L	250	260	250	250	240	220	230	210	(280)B	260	(260)S	290	280
21	270	250	250	250	250	270	(290)S	240	230	240	220	250	230 H	260	230	230	210	200	200	230	240	240	250	280
22	290	280	260	260	250	280	280	240	230	240	230	250	240	250	240	230	220	220	210	(330)S	240	250	(300)S	(300)S
23	300 F	300	300	260	240	240	(260)S	230	220	230	240	240	240 H	(250)L	(250)L	230	220	200	210	230	250	250	250	260
24	(270)S	(280)S	(280)S	310	(280)S	(280)S	(270)S	240	230	(230)L	240	240	240	250	240	240	220	210	220	230	240	250	250	(280)S
25	(290)S	(280)S	(280)S	240	230	250	(280)S	250	220	230	240	240	250	250	250	230	220	230	230	230	260A	(260)S	(270)S	(250)S
26	290	280	260	250	250	280	270	250	220	230	250	230	240	230 H	240	230	230	210	220	230	250	250	250	260
27	(290)S	290	290	300	280	250	250	240	230	230	240	250	240	250	240	230	230	210	220	220	250	240	240	260
28	270	290	[290]A	270	250	240	250	250	230	230	240	260	250	250	240	230	240	230	220	230	250	270	260	270
29	270	280	290	260	240	220	250	240	220	220	240	240	240	240	240	230	230	(210)P,S	220	220	240	(270)S	270	(300)A
30	(310)A	(300)A	(300)A	270	260	240	240	240	230	230	230	250	(230)L,H	250	240	240	210	220	220	260	250	260	260	260
31																								
Median	280	280	280	260	250	250	250	240	230	230	240	250	250	250	240	240	220	210	220	230	240	250	260	270
Count	30	30	30	30	30	28	28	30	29	30	30	30	29	29	30	29	30	30	30	30	30	29	29	30

Sweep 1.0 Mc to 25.0 Mc in 135 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 62

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), November (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D. C.

Lat. 38.7°N, Long 77.1°W

75°W Mean Time

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.1	[3.6]$^{F}_{S}$	(4.4)^{S}	(4.9)$^{F}_{S}$	(4.0)$^{F}_{S}$	2.6	2.7	5.8	8.7	9.6	10.8	10.4	10.5	10.3	10.5	10.0	(9.3)^{S}	8.4	6.6	5.6	(7.8)^{S}	4.5	4.2	4.3
2	4.3	3.9	4.1	4.0	3.7	3.2	3.1	6.0	8.0	8.9	9.3	10.0	10.3	11.2	11.0	(10.3)^{S}	9.4	8.1	6.8	6.6	5.0	4.8	4.7	4.6
3	4.6	4.2	3.9	3.6	3.5	3.1	3.0	5.6	7.6	7.8	9.6	9.2	9.0	10.1	9.4	9.6	9.4	8.4	6.4	5.6	5.2	4.5	4.2	4.1
4	3.8	3.7	3.9	4.2	3.7	2.7	2.3^{M}	(5.0)$^{D}_{S}$	7.2	8.8	10.0	10.0	9.8	9.8	9.8	9.5	9.2	8.5	(7.2)^{S}	6.2	5.2$^{J}_{S}$	4.5	4.5	4.2
5	(3.7)$^{F}_{S}$	(3.6)$^{F}_{S}$	(3.5)$^{J}_{F}$	(3.1)^{F}	(3.0)$^{F}_{S}$	(2.1)^{F}	(2.0)$^{P}_{F}$	5.2	7.2	(9.0)^{S}	8.4	8.8	8.9	9.6	9.9	9.6	8.8	8.3	5.8	4.9	4.3	4.1	3.7^{F}	3.5
6	(3.5)$^{F}_{A}$	(4.1)$^{P}_{S}$	4.0	3.9	(3.3)$^{F}_{S}$	(2.8)$^{P}_{F}$	(2.6)$^{J}_{F}$	4.8^{F}	6.8^{F}	7.5	(8.8)$^{P}_{S}$	8.6	9.0	8.6	8.4	9.2	8.6	(7.3)^{F}	(5.5)^{F}	(5.1)^{F}	4.2	(3.6)$^{F}_{A}$	(3.3)^{F}	(3.6)$^{F}_{A}$
7	(3.6)$^{F}_{S}$	3.7^{F}	(3.9)$^{F}_{A}$	(3.6)^{F}	(3.4)^{F}	(3.2)^{F}	3.1^{F}	(5.5)^{F}	7.6	7.7	8.7	9.2	9.5	9.5	9.3	9.5	9.1	7.5	(5.2)^{S}	(4.2)^{S}	3.9	3.6	3.4	3.2
8	3.2$^{F}_{S}$	3.2	3.2	3.2	3.1	3.0	2.9	(5.6)$^{P}_{S}$	7.0	8.4	9.0	9.4	9.8	10.5	10.6	9.8	8.5	7.2	5.1	5.1	(5.1)^{S}	(5.1)^{S}	(5.2)^{S}	4.8
9	3.8^{F}	3.4^{F}	3.2^{F}	3.5^{F}	3.5^{F}	[3.4]^{C}	(2.6)$^{P}_{S}$	5.1	6.4	7.6	7.8	9.0	9.7	9.7	9.4	9.4	8.6	7.2	5.6	5.4	4.6	3.8	3.5	(3.3)$^{F}_{S}$
10	3.3$^{F}_{S}$	3.2^{F}	3.3	3.3	3.4^{F}	3.4^{F}	3.1	5.1	6.8	8.0$^{J}_{S}$	8.2	9.0	9.5	8.6	8.8	9.0	9.0	7.8	5.4	4.6	4.3	3.6	3.1	3.1
11	3.3	3.7	3.3	3.3	3.3	3.1	2.8^{F}	5.0	7.9	8.4	9.0	8.7	9.6	10.0	9.4	(9.3)^{P}	(9.0)^{C}	(7.4)$^{P}_{S}$	6.3	5.0	4.3	3.6	3.3	3.0
12	3.1	3.1	(3.5)$^{P}_{S}$	(3.2)$^{P}_{S}$	(2.3)$^{J}_{F}$	(2.0)$^{F}_{S}$	(2.4)$^{P}_{F}$	(4.9)$^{P}_{S}$	(6.9)^{S}	8.6	9.0	9.8	10.5	10.2	10.9	10.2	11.0	10.7	7.6	5.7	4.4	3.8	4.1	4.5
13	4.3	(4.8)$^{J}_{S}$	(4.4)$^{J}_{S}$	5.8$^{J}_{S}$	5.2	3.6^{F}	3.4^{F}	5.3	7.2	8.4	9.8	10.1	10.0	9.5	9.0	9.2	9.3	8.0	6.4	5.4	4.5	4.0	3.9	3.9
14	3.8	4.2	4.2	4.2^{F}	4.2^{F}	(4.1)$^{F}_{S}$	3.6^{F}	5.3	7.4	8.4	9.2	9.0	9.5	9.4	9.2	9.4	8.9	7.6	6.3	5.0	4.6	3.8	3.6	3.5
15	3.2	3.5	3.9	3.8	4.0	3.6	2.8	4.6	7.2	7.5	[8.9]^{C}	10.0	10.2	10.0	10.1	9.6	10.2	9.1	8.0	7.0	5.0	4.0^{F}	3.6	4.0
16	4.4	(4.5)^{F}	(4.6)$^{F}_{S}$	(3.9)$^{F}_{S}$	4.1	3.7	3.0	5.4	7.8	7.4	9.9	9.9	11.5	10.8	10.0	9.6	9.2$^{J}_{S}$	8.5	6.7	4.8	4.0	3.1^{F}	2.8^{F}	2.8^{F}
17	(3.0)^{F}	(3.6)$^{F}_{S}$	4.0^{F}	3.5^{F}	3.4^{F}	(2.8)^{F}	2.9	5.2	7.2	(8.6)$^{P}_{F}$	9.2	9.7	(9.7)$^{P}_{S}$	9.5	9.2	8.6	8.5	(7.2)$^{P}_{S}$	(6.7)$^{P}_{S}$	(5.6)$^{F}_{S}$	4.4	(4.2)$^{P}_{S}$	3.6^{F}	3.7^{F}
18	3.6^{F}	(3.3)^{F}	(3.5)^{F}	(3.6)$^{F}_{S}$	(3.8)$^{J}_{F}$	(3.9)$^{S}_{F}$	(2.9)$^{S}_{F}$	4.5	7.5	8.0	9.3	9.6	9.8	9.7	10.2	10.2	10.4	9.7	6.7	6.6	(4.9)$^{J}_{A}$	3.4^{F}	3.7^{F}	(3.7)^{F}
19	4.4$^{J}_{S}$	(4.2)$^{F}_{S}$	2.8^{F}	(2.3)$^{F}_{S}$	2.2^{F}	A	(2.2)$^{P}_{F}$	3.9^{F}	4.9^{F}	(5.5)$^{F}_{S}$	(5.2)$^{H}_{F}$	(4.2)$^{A}_{S}$	4.6	4.7^{F}	5.3	5.2	5.9	5.8	5.1	5.0	4.4	5.0	4.9	3.3^{F}
20	3.2^{F}	2.9^{F}	(3.0)^{F}	(2.5)$^{P}_{F}$	[2.0]^{F}	(2.2)$^{P}_{F}$	E	4.4	6.2	8.0	8.4	9.0	10.0	9.6	11.2	10.5	10.5	8.8	7.0	5.4	(5.0)$^{F}_{S}$	4.7^{F}	(4.2)$^{F}_{S}$	(3.7)$^{F}_{S}$
21	3.8^{F}	(3.4)$^{F}_{S}$	(3.3)$^{F}_{S}$	3.3^{F}	3.1^{F}	2.6	2.5	4.4	7.4^{F}	8.6	8.7	9.2	8.8^{H}	10.7	9.0	9.0	8.0	6.8	5.5	4.4^{F}	3.7^{F}	3.3^{F}	2.8^{F}	2.7^{F}
22	2.7^{F}	2.6^{F}	2.7^{F}	2.5^{F}	(2.3)$^{P}_{S}$	2.2	2.2^{F}	4.2^{F}	6.6	7.0	7.7	8.2	8.1	8.7	8.6	8.1	7.6	6.8^{F}	5.9	3.7	3.3	3.2	(2.6)$^{J}_{S}$	(2.6)$^{J}_{S}$
23	2.6^{F}	(2.8)$^{F}_{S}$	(2.8)$^{F}_{S}$	(3.1)$^{F}_{S}$	(3.4)$^{F}_{S}$	2.6^{F}	(2.6)$^{F}_{S}$	(4.2)$^{F}_{S}$	7.4^{F}	8.6	9.0	8.4	(8.4)$^{P}_{H}$	8.6	9.4	8.6	(8.5)$^{F}_{S}$	8.2^{F}	(5.5)$^{F}_{S}$	(4.8)$^{F}_{S}$	4.1^{F}	3.6	3.4^{F}	2.9^{F}
24	2.8^{F}	2.8^{F}	2.5	2.2	2.3	2.5	2.8^{F}	4.4^{F}	7.0	8.2	9.0	8.6	9.3	9.7	9.8	9.5	9.0	8.2	6.3	5.8	4.5	4.0	3.3	3.3
25	3.5^{F}	3.8^{F}	(3.8)^{F}	3.9^{F}	(3.5)^{F}	3.0^{F}	2.9^{F}	4.6^{F}	7.4	8.0	9.1	9.8	9.5	9.4	9.4	9.2	8.3	7.9	5.2^{F}	4.5^{F}	(3.7)$^{F}_{S}$	3.5^{F}	3.3^{F}	3.3^{F}
26	3.4^{F}	3.6	3.7^{F}	3.5^{F}	3.4	3.2	3.1	4.7	7.4	8.6	9.0	9.0	10.0	9.0^{H}	8.8	8.7	9.0	7.2	5.8	4.3	4.0	3.5^{F}	3.0	3.0
27	2.8^{F}	2.8	3.0	3.5	3.6	3.5	3.4	5.0	7.6	9.0	9.1	10.6	9.8	9.6	9.1	9.1	8.5	7.5	6.1^{F}	4.8$^{J}_{S}$	3.8	3.8	3.1^{F}	2.9
28	3.0	3.4	3.6	3.8	3.8	3.6	3.4	4.7	7.4	7.9	8.8	10.0	9.8	9.0	9.8	(9.2)^{P}	9.1	8.8	6.0	5.2	3.9	3.7	3.9	3.7
29	3.8	4.1	3.9	4.2	4.1	3.5	3.0	4.3	7.4	8.4	8.6	9.7	9.4	9.8	10.3	9.4	8.8	(7.7)$^{P}_{S}$	5.7	4.5	3.5	3.0	3.0	3.1^{F}
30	3.5	3.5^{F}	4.2^{F}	4.7	4.5	4.3	3.9	5.0	8.0	8.2	8.9	10.0	9.6^{H}	9.9	9.4	9.0	8.2	6.8	5.9	5.5	4.2	4.1	4.1	3.8
31																								
Median	3.5	3.6	3.6	3.6	3.4	3.1	2.9	5.0	7.4	8.3	9.0	9.3	9.6	9.6	9.4	9.4	9.0	7.8	6.0	5.1	4.4	3.8	3.6	3.5
Count	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 135 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 63

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

foF2 (Characteristic), Mc (Unit), November (Month), 1955

IONOSPHERIC DATA

National Bureau of Standards (Institution)

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.A., J.M.W.

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	(3.4)$^{E}_{S}$	(3.8)$^{E}_{S}$	(4.3)$^{E}_{S}$	4.7	3.3	2.5	4.3	7.4	8.8	10.0	10.5	10.2	10.2	10.2	10.1	9.9	8.6	(6.7)$^{J}_{S}$	6.0	5.2	4.6	4.3	4.3	4.4
2	4.1	3.9	4.1	3.9	3.4	2.9	4.5	7.4	8.6	9.1	10.0	10.0	10.7	11.3	11.0	10.0	(8.8)^{S}	7.0	6.6	5.7	4.9	4.6	4.7	4.6
3	4.4	4.0	3.7	3.6	3.3	2.9	4.2	6.6	7.8	8.8	9.6	8.6	9.6^{H}	10.2	9.6	9.9	9.0	7.2	5.8	5.4	4.8	4.4	4.1	4.2
4	3.9	3.7$^{E}_{S}$	4.1	3.9	3.2	2.3	3.6	6.2	8.2	9.7	10.0	10.2	9.8	10.0	9.2	(9.3)^{S}	9.2	8.2	6.6	5.8	4.6	4.3	4.3	3.9$^{J}_{E}$
5	[3.6]^{E}	(3.6)$^{E}_{S}$	3.2	(3.0)$^{J}_{E}$	(2.5)$^{E}_{S}$	A^{E}	3.4^{E}	5.7	7.7	9.3	8.7	9.0	9.8	9.5	9.6	9.2	9.0	7.2	5.4	4.6	4.3	4.0	3.7^{E}	3.5
6	(3.6)$^{E}_{A}$	[4.0]$^{E}_{A}$	4.0	3.7	(3.2)$^{E}_{S}$	(2.7)$^{E}_{S}$	3.7	6.1	7.2	8.0	8.4	9.4	8.8	8.5	9.4	9.2	8.4	6.5^{E}	5.1^{E}	4.5	(3.7)^{E}	3.4^{E}	3.5^{E}	(3.2)$^{E}_{A}$
7	3.5^{E}	3.7^{E}	3.9^{E}	(3.5)^{E}	(3.3)^{E}	3.0^{E}	(3.9)^{E}	6.6	7.4	8.2	8.8	9.3	9.8	9.4	9.4	9.5	8.5	(5.9)^{S}	(5.2)^{S}	4.2	(3.6)$^{E}_{S}$	3.4$^{E}_{S}$	3.4	3.3
8	(3.1)^{S}	3.2	3.3	3.2	3.1$^{J}_{S}$	2.8	3.8	6.4	7.6	8.8	9.2	9.6	9.7	10.2	10.4	9.2	8.3	6.4	(5.4)$^{E}_{S}$	(4.9)$^{E}_{S}$	(5.2)^{S}	(5.2)^{S}	4.9	[4.3]^{C}
9	(3.7)$^{E}_{A}$	(3.4)$^{E}_{S}$	3.4^{E}	3.6^{E}	3.5	3.2	3.8	6.2	7.6	7.6	8.2	9.6	9.8	9.5	9.2	9.0	7.8	6.2	5.6	4.9	4.1	3.5	3.4	3.2$^{E}_{S}$
10	3.2	3.3	3.4	3.3	3.5^{E}	3.2	3.7	6.1	7.6	8.2	9.0	9.2	8.8	8.6	8.8	9.2	8.6	6.0	5.6	4.2	3.9	3.3	3.3	3.2
11	3.6	3.3	3.7	3.7	3.3	2.9	3.7	6.9	8.5	8.7	9.3	8.9	10.1	9.7	9.3	9.0	(8.8)$^{D}_{S}$	(7.3)$^{D}_{S}$	5.5	4.8	(3.8)$^{D}_{S}$	3.2	(3.3)$^{D}_{H}$	3.0
12	3.1	(3.2)^{D}	3.5	2.8	(2.2)$^{J}_{C}$	(2.2)$^{J}_{C}$	(3.5)$^{E}_{S}$	(6.3)$^{J}_{S}$	(7.8)$^{D}_{E}$	9.2	(8.9)^{S}	10.1	10.0	10.0	10.9	(11.2)^{S}	11.0	9.2	7.0	5.0^{J}	3.9	3.7	4.2H	4.6
13	4.8	(3.8)$^{E}_{S}$	5.5	5.2	(4.0)^{E}	3.4^{E}	4.2^{E}	6.3	7.7	9.0	9.6	10.1	10.3	9.3	8.8	9.3	9.0	6.8	6.1	4.7	4.2	4.1	3.9	3.7
14	4.2	4.2	4.3	4.3	(4.2)^{E}	3.8	(4.0)$^{E}_{S}$	6.7	7.8	9.0	8.6	9.3	9.4	9.2	9.4	8.8	8.6	7.2	6.1	4.9	4.2	3.6	3.6	3.4
15	3.4	3.6^{E}	3.7	3.8	3.9	3.1	(3.5)^{S}	5.6	7.1	8.8	9.6	10.5	10.4	10.7	9.8	10.1	9.1	9.0	7.7	5.6	4.1^{E}	(3.6)^{E}	4.0	4.4
16	4.5	4.4	(4.2)$^{J}_{S}$	(3.7)^{S}	3.8^{E}	(3.1)$^{S}_{S}$	3.5	7.2	8.2	8.9	9.4	11.0	10.6	10.0	9.7$^{J}_{S}$	9.2	9.0	7.4	6.2	4.4	3.4^{E}	3.0^{E}	2.8^{E}	2.7^{E}
17	(3.5)$^{J}_{E}$	4.0	(3.9)$^{J}_{E}$	(3.3)$^{J}_{S}$	(3.2)^{S}	2.9^{E}	3.7^{E}	7.4	7.8	8.2^{E}	9.5	9.8	9.6	9.5	8.7	9.0	8.2	7.0	6.2	4.7	4.2	(4.2)$^{D}_{S}$	(3.5)$^{D}_{E}$	(3.6)$^{D}_{E}$
18	(2.5)^{E}	(3.1)^{E}	(3.6)^{E}	(3.6)$^{E}_{S}$	(3.8)$^{J}_{E}$	(3.4)^{E}	3.3	5.8	7.2	8.6	9.2	10.0	9.7	10.4	9.6	9.6	10.8	(7.8)$^{J}_{S}$	7.4$^{J}_{S}$	(6.6)$^{J}_{S}$	3.5^{E}	3.5^{E}	3.5^{E}	[3.8]^{E}
19	4.4	(3.2)$^{E}_{S}$	(2.5)$^{E}_{S}$	(2.2)$^{D}_{E}$	(2.0)$^{J}_{A}$	F	(2.8)$^{E}_{S}$	(4.3)$^{E}_{S}$	(5.2)$^{D}_{E}$	(5.6)$^{J}_{H}$	(4.7)^{H}	(4.8)^{H}	4.5	5.0	5.6	5.6	5.8	5.1	4.9	4.8	(4.6)^{S}	4.9	4.0	3.0^{E}
20	3.2	2.9^{E}	3.0^{E}	(2.1)$^{D}_{E}$	(1.8)^{E}	E	(2.7)$^{D}_{E}$	5.3	7.1	7.8	9.0	9.2	10.2	10.7	11.0	10.5	10.0	8.0	6.4	4.8^{E}	5.2	4.2	(3.6)^{E}	3.8$^{E}_{S}$
21	(3.5)$^{E}_{S}$	(3.4)$^{E}_{S}$	(3.3)$^{E}_{S}$	3.2$^{E}_{S}$	2.6$^{E}_{S}$	2.5$^{E}_{S}$	(2.8)$^{E}_{S}$	6.0	8.2	8.9	9.0	10.0	9.0	9.8	9.7	9.1	8.3	6.8	4.6^{E}	4.0^{E}	3.7	3.4^{E}	2.8	2.7^{E}
22	2.6^{E}	2.7^{E}	2.5^{E}	2.4^{E}	2.3^{E}	2.2^{E}	2.6^{E}	5.2	7.0	7.8	8.1	8.2	8.5	8.9	8.4	7.8	7.0	6.8	4.8	4.0	3.2	2.9	(2.6)$^{J}_{S}$	2.6$^{E}_{S}$
23	(2.6)^{E}	(2.8)$^{E}_{S}$	(3.0)$^{E}_{S}$	(3.6)$^{E}_{S}$	(3.0)$^{E}_{S}$	(2.6)$^{E}_{S}$	(2.7)$^{E}_{S}$	(5.8)$^{E}_{S}$	8.2	8.3	8.8	8.2	8.2	9.2	9.4	8.8	(8.6)$^{E}_{S}$	(6.4)$^{E}_{S}$	5.2^{E}	4.5^{E}	3.9	3.5^{E}	(3.3)$^{E}_{S}$	2.9^{E}
24	2.8^{E}	2.7^{E}	2.3	2.3	2.3	2.6^{E}	(3.1)^{S}	6.2	8.0	9.0^{E}	9.0	8.8	9.6	9.8	9.6	9.2	8.5	6.8	6.2	4.9	3.9$^{J}_{S}$	3.6	3.1	3.2^{E}
25	3.7^{E}	(3.8)^{E}	(3.8)^{E}	(3.9)^{E}	(3.0)^{E}	3.0^{E}	(3.4)^{E}	6.2	7.8	8.2	9.4	9.2	9.5	9.2	9.8	8.8	7.4	6.3	4.8	4.1	(3.6)$^{E}_{S}$	3.4	3.4^{E}	(3.3)^{E}
26	3.5	3.8^{E}	3.5^{E}	3.4	3.8^{E}	(3.2)$^{D}_{S}$	3.2	6.3	8.0	8.0	9.0	9.4^{H}	9.0	8.8	8.7	8.6	8.4	6.2	5.2	3.9	3.6^{E}	3.4^{E}	3.0^{E}	2.9
27	2.7	2.9	3.3	3.6	3.6	3.5	3.7	6.2	8.4	8.4	9.8	9.8	10.0	9.2	9.2	8.6	8.1	7.0	5.6^{E}	4.3	3.8^{E}	3.4^{E}	3.0^{E}	3.0
28	3.2	3.3	3.7	3.9	3.9	3.3	3.5	6.2	7.5	8.7^{H}	9.7	9.9	9.0	9.5	9.6	8.8	8.8	7.5	5.8	4.3	3.7	3.7	3.5	3.9
29	4.0	3.8	4.2	4.4	4.1	3.3	3.1	5.8	7.4	8.4	9.3	9.8	9.8	10.5	9.6	8.9	9.0	6.7	5.0	3.8	3.1	2.9	3.1^{E}	3.4
30	3.4^{E}	3.6^{E}	4.4	4.8	4.5	4.1	4.1	7.1	8.3	9.0	9.9$^{J}_{S}$	9.6	10.0	10.0	9.3	8.4	8.2	7.0$^{J}_{S}$	5.8	4.3	(4.2)$^{E}_{S}$	3.8	3.9	3.7
31																								
Median	3.5	3.6	3.7	3.6	3.3	3.0	3.6	6.2	7.8	8.7	9.2	9.6	9.8	9.6	9.5	9.2	8.6	6.9	5.7	4.7	3.9	3.6	3.5	3.4
Count	30	30	30	30	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 64

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h' F1 (Characteristic), Km (Unit), November (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Lang 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J. J. S., J.W.P., E. J. W.

Calculated by: K.D.B., R.C.M., J.M.W

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1								Q	230	210	220	200	210	210	(220)S	230	Q	Q								
2								Q	Q	220	200	190	190	220	220	210	Q									
3								Q	Q	210	210	210	200	200	240	220	Q									
4								Q	Q	(210)A	200	190H	200H	210	230	220	Q									
5								Q	220	210	200	190	210	230	220	220	Q									
6								Q	210	200	200	190F	200F	210	210	220	Q									
7								Q	Q	210	210	190	210	230	220	220	Q									
8								Q	(210)S	200	200	200	200	220	220	220	Q									
9								Q	Q	Q	210	200H	200	210	220	220	Q									
10								Q	Q	220	200H	220	200	200H	210	240	Q									
11								Q	Q	210	200	210	200	200	200	210	Q									
12								Q	Q	210	190H	210	220	220	230	230	Q									
13								Q	230	210	200H	200H	220	200	210	230	Q									
14								Q	Q	220	210	210	210	210	220	220	Q									
15								Q	Q	220	[220]C	210	200	210	220	230	Q									
16								Q	Q	210	210	220	210	220	220	220	Q									
17								Q	(230)S	220	210	200	200	220	220	Q	Q									
18								Q	Q	Q	210	230	200	210	230	220	Q									
19								Q	240	230	250	250	250	240	240H	250	Q									
20								B	B	230	210	210	220	220	B	B	Q									
21								Q	Q	230	210	210	220	220	220	200H	Q									
22								Q	Q	200H	220	210	200H	230	220	230	Q									
23								Q	Q	220	220	210	200	220	230	220	Q									
24								Q	Q	220	220	210	210	220	220	230	Q									
25								Q	Q	Q	220	230	220	220H	220	240	210									
26								Q	Q	230	200	230	230	220	210	220	Q									
27								Q	Q	220H	210	210	220	220	210	220	Q									
28								Q	230	230	220	220	230	210H	200	240	Q									
29								Q	Q	230	220	210H	210	210	230	220	Q									
30								Q	Q	220	200	220	210	230	230	230	Q									
31																										
Median									230	220	210	210	210	220	220	220	—									
Count									8	27	30	30	30	30	29	28	1									

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 65

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

foF1 (Characteristic), Mc (Unit), November (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								Q	L	L	L	L	L	L	L	L	Q							
2								Q	Q	L	L	L	L	L	L	L	Q							
3								Q	Q	L	L	L	L	(48)L	L	L	Q							
4								Q	Q	L	L	L H	L H	L	L	L	Q							
5								Q	L	L	L	L	L	L	L	L	Q							
6								Q	L	L	L	L	L	L	L	L	Q							
7								Q	Q	L	L	L	L	L	L	L	Q							
8								Q	L	L	L	L	L	L	L	L	Q							
9								Q	Q	Q	L	L H	L	(44)L	L	L	Q							
10								Q	Q	L	L H	L	L	L H	L	L	Q							
11								Q	Q	L	L	L	L	L	L	L	Q							
12								Q	Q	L	L H	L	L	L	L	L	Q							
13								Q	L	L	L H	L H	L	L	L	L	Q							
14								Q	Q	L	L	L	L	L	L	L	Q							
15								Q	Q	L	L	L	L	L	L	L	Q							
16								Q	Q	L	L	L	L	L	L	L	Q							
17								Q	L	L	L	L	L	L	L	Q	Q							
18								Q	Q	Q	L	L	L	L	L	L	Q							
19								Q	L	(39)L	39	39	40	(41)L	(39)L H	L	Q							
20								B	L	L	L	L	L	L	B	L	Q							
21								Q	Q	L	L	L	L	L	L	L H	Q							
22								Q	Q	L H	L	L	L H	L	L	L	Q							
23								Q	Q	L	L	L	L	L	L	L	Q							
24								Q	Q	L	L	L	L	L	L	L	Q							
25								Q	Q	Q	L	L	L	L H	L	L	L							
26								Q	Q	L	L	L	L	L	L	L	Q							
27								Q	Q	L H	L	L	L	L	L	L	Q							
28								Q	L	L	L	L	L	L H	L	L	Q							
29								Q	Q	L	L	L H	L	L	L	L	Q							
30								Q	Q	L	L	L	L	L	L	L	Q							
31																								
Medion									—	—	—	—	—	—	—	—	—							
Count									0	1	1	1	1	3	1	0	0							

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 66

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h'E (Characteristic), Km (Unit), November (Month), 1955

Observed at Washington, D.C.

Lat. 38.7°N, Lang 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								S	110	(110)^{S}	110	(110)^{A}	(110)^{A}	100	(100)^{S}	110	(110)^{S}	S						
2								S	110	110^{H}	100	100	100	100	100	(110)^{A}	(110)^{A}							
3								S	A	A	A	A	100^{H}	(100)^{A}	100	(100)^{A}	A								
4								S	110	110	100	(100)^{S}	(100)^{B}	(110)^{B}	110	110	(120)^{A}								
5								S	(120)^{A}	100^{A}	(100)^{A}	(100)^{A}	(100)$^{B}_{H}$	100^{H}	100^{H}	(110)^{A}	A								
6								S	A	A	(120)^{A}	(100)^{A}	[100]^{A}	(110)^{A}	110	110	A								
7								S	A	(100)$^{A}_{H}$	(100)$^{S}_{H}$	(120)^{A}	(110)^{A}	(100)^{S}	(110)^{B}	110	110								
8								S	110	100	(100)^{A}	100^{H}	100^{H}	(100)^{A}	(100)^{A}	(120)^{A}	A								
9								A	(110)^{S}	(120)^{A}	(120)^{A}	(120)^{A}	(120)^{A}	(110)^{A}	(110)^{A}	A	A								
10								S	(120)^{A}	110	110	100	100	(110)^{A}	(110)^{A}	[110]^{A}	(110)^{A}								
11								S	(110)^{A}	(100)^{A}	100	100	(110)^{B}	100	110	(100)^{A}	(120)^{S}								
12								S	(120)^{A}	(110)$^{A}_{H}$	(110)^{A}	100	110	110	110	110	110								
13								A	110^{H}	(100)$^{A}_{H}$	(100)^{A}	100	100	100	110	(120)^{A}	(120)^{A}								
14								S	110	110	110^{H}	100	110^{H}	110	100	110	120								
15								S	110	110	(110)^{C}	110	110	110	110	110	120^{H}								
16								S	100^{H}	100	100	100^{H}	100	110	110	100	A								
17								S	(110)^{A}	(100)^{A}	100	100	(100)^{A}	100	100	(110)^{A}	A								
18								S	A	A	120	A	A	A	120	100^{H}	120^{H}								
19								S	(110)^{S}	110	110^{H}	(120)^{B}	(110)^{B}	(120)^{B}	(110)^{B}	110	(120)^{S}								
20								B	B	B	(110)^{B}	110^{H}	(110)^{B}	(110)^{B}	B	B	B								
21								S	A	110	(120)^{A}	100	100	120	120	(130)^{B}	B								
22								S	B	B	B	B	(120)^{B}	(120)^{B}	(120)^{A}	B	A								
23								S	S	B	(120)^{B}	(120)^{B}	(120)^{B}	(110)^{B}	120	120	120								
24								S	B	110^{H}	110	(120)^{B}	(120)^{B}	(120)^{B}	(120)^{B}	110	120^{H}								
25								S	(120)^{B}	(130)^{B}	110	(120)^{A}	[120]^{A}	(120)^{A}	(120)^{S}	110^{H}	(120)^{S}								
26								S	(120)^{A}	(110)^{A}	(110)^{A}	110^{H}	110	(120)^{B}	120^{H}	120	B								
27								S	120	110^{H}	110$^{B}_{H}$	(130)^{B}	(120)^{B}	(120)^{E}	(120)^{B}	B	B								
28								B	B	B	B	B	A^{H}	(110)^{B}	(120)^{B}	120	A								
29								S	120	120^{H}	120	(120)$^{B}_{H}$	110	(120)$^{B}_{H}$	(120)^{B}	120	120								
30								S	130^{H}	120	120^{H}	120	120	120^{H}	120^{H}	120	120^{H}								
31																								
Median								—	110	110	110	100	(110)	(110)	110	110	120	—						
Count								0	20	23	27	26	28	29	29	26	17	0						

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836046

TABLE 67

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

foE (Characteristic), Mc (Unit), November (Month), 1955

Observed at Washington, D. C.

Lat. 38.7°N, Long. 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J. J. S., J. W. P., E. J. W.

Calculated by: K. D. B., R. C. M., J. M. W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1								A	(2.2)^{S}	A	A	A	(3.2)^{A}	(3.2)^{S}	3.1	2.8	(2.4)^{S}	<1.6^{S}								
2								<1.6^{S}	A	2.7^{H}	(2.9)^{A}	3.1	(3.1)^{A}	3.1	3.1	(2.8)^{D}	(2.2)^{S}									
3								<1.6^{S}	A	A	A	A	3.1^{H}	3.1	3.0	2.8	A									
4								A	(2.3)^{S}	A	A	3.2	3.2	3.2	(3.0)^{A}	2.7	(2.2)^{S}									
5								A	A	A	A	A	(3.1)^{H}	3.1^{H}	3.0^{H}	2.7	A									
6								<1.7^{S}	A	A	2.9	3.1	[3.1]^{A}	3.1	(3.0)^{A}	2.7	A									
7								A	A	(2.6)^{H}	2.9^{H}	3.1	3.2	3.2	3.1	2.8	(2.2)^{S}									
8								<1.6^{S}	(2.3)^{S}	(2.7)^{A}	(2.9)^{A}	3.1^{H}	3.1^{H}	(3.1)^{A}	3.0	(2.6)^{A}	A									
9								A	(2.3)^{S}	2.7	2.9	A	A	A	A	A	A									
10								<1.6^{S}	2.2	(2.7)^{D}	2.9	3.1	3.2	3.1	3.0	[2.6]^{A}	2.1									
11								<1.6^{S}	A	A	(3.0)^{A}	(3.2)^{D}	3.2	(3.2)^{D}	2.9	(2.7)^{D}	2.1									
12								<1.6^{S}	(2.3)^{A}	2.8^{H}	(3.1)^{D}	3.1	3.2	3.2	2.9	2.6	(2.2)^{D}									
13								A	2.3^{H}	2.8^{H}	3.0	3.1	3.1	3.1	3.0	2.7	2.0									
14								<1.8^{S}	2.2	(2.6)^{S}	(2.9)^{H}	3.0	(3.1)^{H}	3.2	3.0	(2.6)^{A}	R									
15								<1.6^{S}	(2.3)^{S}	(2.6)^{D}	[2.9]^{C}	3.1	3.2	3.2	3.1	2.7	2.7^{H}									
16								<1.6^{S}	2.1^{H}	2.6	[2.8]^{A}	2.7^{H}	3.0	3.1	3.0	2.6	1.9									
17								<1.6^{S}	A	A	(2.8)^{A}	3.0	3.1	3.0	2.9	2.7	A									
18								<1.6^{S}	A	A	3.1	4	A	A	(3.0)^{A}	2.7^{H}	2.3^{H}									
19								<1.6^{S}	R	(2.6)^{F}	(2.9)^{H}	3.0	3.1	3.1	2.9	A	A									
20								B	B	B	2.9	3.1^{H}	(3.1)^{A}	(3.1)^{D}	B	R	B									
21								<1.6^{S}	A	2.6	2.9	3.1	3.2	3.1	2.9	(2.5)^{B}	B									
22								<1.6^{S}	B	(2.6)^{B}	3.0	[3.0]^{B}	3.1	3.1	(2.9)^{B}	B	A									
23								<1.6^{S}	<1.8^{S}	B	2.9	(3.1)^{D}	3.1	3.1	(2.8)^{D}	2.5	1.9									
24								<1.6^{S}	B	2.5^{H}	2.9	3.1	3.1	3.0	2.9	2.6	2.0^{H}									
25								<1.7^{S}	A	2.6	[2.8]^{A}	(3.0)^{A}	[3.0]^{A}	3.0	(2.9)^{D}	R^{H}	A									
26								<1.6^{S}	A	A	A	3.1^{H}	3.1	3.1	2.9^{H}	2.5	B									
27								<1.7^{S}	R	2.6^{H}	3.0^{H}	3.0	3.0	3.2	3.0	B	B									
28								B	B	B	A	4	(3.2)^{H}	3.1	3.0	2.7	A									
29								<1.6^{S}	1.9	2.7^{H}	2.9	3.0^{H}	3.0	3.0^{H}	(2.6)^{B}	(2.6)^{A}	A									
30								<1.7^{S}	2.1^{H}	2.5	3.0^{H}	3.0	3.1	3.1^{H}	2.9^{H}	[2.4]^{A}	1.9^{H}									
31																										
Median								<1.6	2.2	2.6	2.9	3.1	3.1	3.1	3.0	2.7	2.2	—								
Count								22	13	18	24	24	28	28	28	24	14	1								

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 68

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

Es (Characteristic), Mc, Km (Unit) November (Month) 1955

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W 75°W Mean Time

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	<1.6 S	<1.6 S	<1.5 S	3.0H 120	3.7 100	3.1 100	<1.6 S	4.6H 100	7.0Y 110	3.5Y 110	3.0 110	3.5Y 110	3.0 100	G	G	G	G	2.1H 100	1.7 100	<1.6 S	<1.6 S	2.2 110	<1.6 S	1.8 110
2	2.2 100	2.1 120	3.0 100	<1.6 S	<1.3 S	<1.5 S	<1.5 S	3.7Y 100	2.4 120	G	3.1F 110	7.4Y 110	3.2 120	3.7Y 100	4.5 130	2.2 100	3.5Y 120	3.2 90	2.6Y 90	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
3	3.7 100	<1.6 S	<1.6 S	<1.6 S	4.3Y 100	<1.6 S	<1.6 S	G	3.8 110	6.6H 90	3.6 100	4.5Y 100	G	6.6 110	G	4.5Y 100	4.4Y 100	4.6 90	4.1 90	3.0 90	<1.6 S	<1.6 S	<1.6 S	<1.6 S
4	<1.7 S	<1.6 S	<1.3 S	E	<1.6 S	<1.6 S	3.6Y 90	1.9 120	(2.1)S S (120)	4.4 110	4.0 100	G	G	G	4.2 110	G	4.6Y 100	2.0 130	3.2 120	2.7 120	<1.3 S	<1.6 S	<1.6 S	<1.6 S
5	<1.6 S	<1.6 S	<1.3 S	<1.3 S	<1.3 S	2.7Y 130	4.6 120	3.7Y 120	2.4 120	4.1Y 100H	4.0 100	4.1Y 100	3.3 110	G	G	3.1Y 100	3.1Y 100	2.2 100	3.0 100	<1.6 S	2.9Y 100	<1.6 S	4.3 100	<1.5 S
6	3.6 100	4.8 100	4.2 100	2.9 100	2.7Y 100	3.1 100	<1.6 S	<1.7 S	(2.3)S 110	3.1H 100	3.2 100	3.3Y 100	(4.1)S 100	3.6 100	4.3H 100	1.8 100	3.0 70	3.0 90	<1.7 S	2.1 110	1.8 110	5.6 100	4.6 100	5.2 100
7	4.9 100	3.6 100	4.3 100	3.7 100	2.7Y 100	7.2H 100H	(2.1)S 100	2.0 100	3.0 110	9.2Y 100	(2.3)S 100	2.0 100	2.1 100	G	G	G	G	<1.6 S	<1.6 S	2.0 100	2.0 100	2.1Y 100	<1.6 S	<1.6 S
8	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.1Y 90	2.1 90	<1.6 S	G	G	2.8 110	3.2H 100	G	G	3.8Y 100	3.0Y 100	3.1Y 100	2.8Y 100	<1.6 S	<1.7 S	<1.8 S	<1.6 S	<1.7 S	2.0 110	2.1 100
9	3.2 100	4.6H 100	3.4Y 110	<1.6 S	<1.6 S	C	3.6Y 100	2.8 110	G	2.3 100	2.7 100	3.2 120	3.2 120	3.5 110	3.3 110	6.8Y 100	3.5 100	4.6 100	3.1 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
10	4.5 100	3.7 100	2.9 100	<1.3 S	<1.6 S	<1.6 S	<1.6 S	G	2.1 110	G	G	3.0 100	G	4.8 100	4.0 100	4.6 100	3.5 100	3.5 100	3.6 100	3.0 100	3.0 100	<1.6 S	<1.6 S	<1.6 S
11	<1.6 S	2.8 100	2.3 110	<1.6 S	4.0 120	<1.6 S	2.3 100	5.8 90	3.0 110	4.3H 100	3.2Y 110	G	G	G	G	2.8Y 100	G	2.8 110	<1.7 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	4.0 100
12	2.8Y 100	<1.6 S	<1.6 S	<1.4 S	C	<1.6 S	<1.6 S	1.8 110	2.4 110	2.6 110	(2.6)C 110	G	G	G	G	G	G	1.8 110	1.7 120	3.1Y 110	4.6Y 110	4.6Y 110	4.8Y 100	3.7 100
13	3.4Y 100	3.8 100	2.5 100	<1.6 S	<1.6 S	<1.3 S	<1.6 S	2.9E 110	2.9 110	3.3 100	3.6 100	3.2 110	G	G	1.8 100	2.2 100	1.7 100	2.7Y 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
14	<1.6 S	<1.2 S	<1.6 S	<1.1 S	4.3Y 110	<1.2 S	(2.1)S 130	G	G	G	G	G	G	G	G	2.7 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
15	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.2 100	G	G	G	C	G	G	G	G	G	1.7 100	<1.6 S	<1.6 S	<1.6 S	5.0Y 110	<1.6 S	<1.6 S	<2.5 S
16	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.5 S	(2.9)S 110	4.2 110	3.8 110	G	4.6 110	3.1 110	G	G	G	G	G	8.4Y 100	2.9 100	2.3 100	<1.6 S	2.2 90	<1.6 S	2.7 100	<1.6 S
17	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.9 120	<1.6 S	(2.6)S 100	4.2H 100	2.9 110	3.7 100	3.1Y 100	3.0Y 100	4.4Y 100	G	3.2 130	4.1H 100	6.6H 100	4.6H 100	2.9 100	2.9 100	2.2 100	<1.6 S	3.6 100	3.5 100
18	3.4 100	4.0Y 100	<1.3 S	<1.3 S	<1.3 S	<1.6 S	2.3 100	2.8 110	6.2Y 100	2.4Y 110	3.0 100	4.1Y 100	4.1Y 100	4.4Y 100	4.1Y 100	G	G	<1.6 S	<1.6 S	<1.6 S	9.0 100	3.4 10	3.3Y 110	3.0 100
19	<1.5 S	<1.4 S	<1.1 S	<1.2 S	<1.4 S	4.7 120	<1.6 S	1.8 110	G	G	G	G	G	G	G	2.6Y 120	2.1 120	<1.6 S	<1.6 S	2.2Y 130	<1.6 S	<1.3 S	<1.6 S	<1.6 S
20	<1.6 S	<1.4 S	<1.6 S	<1.6 S	<1.3 S	<1.7 S	E	G	G	<2.8 B	G	G	3.1 120	G	<4.1 B	<3.3 B	<2.7 B	<2.5 B	<1.6 S	<2.5 B	<1.6 S	<1.5 S	<1.6 S	<1.6 S
21	<1.6 S	E	E	<1.2 S	<1.3 S	<1.6 S	3.1Y 110	1.7 110	2.1 110	G	2.6 100	G	G	G	G	G	<2.6 B	<1.6 S	<1.4 S	2.9 100	5.0 100	4.8 100	<1.6 S	<1.6 S
22	<1.6 S	<1.4 S	<1.1 S	E	<1.1 S	<1.6 S	3.6Y 140	G	<2.4 B	2.7 150	G	<3.2 B	G	G	2.5 100	<2.6 B	2.7 90	3.7Y 100	1.9 100	<1.9 S	<1.6 S	<1.6 S	<1.7 S	<1.6 S
23	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.3 S	<1.6 S	<1.6 S	G	2.0 110	<2.8 B	G	G	G	G	3.0 140	G	2.0 140	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.5 S	<1.6 S	<1.6 S
24	<1.7 S	<1.6 S	<1.5 S	<1.2 S	<1.6 S	<1.6 S	<1.6 S	G	<2.5 B	G	G	3.2 130	G	G	G	G	G	<1.6 S	<1.6 S	2.3 110	2.4 110	2.8 140	<1.6 S	<1.6 S
25	<1.6 S	<1.6 S	<1.5 S	<1.6 S	<1.6 S	<1.3 S	<1.6 S	G	2.1 120	2.8 130	3.8H 120	3.4H 100	5.0 100	4.3 100	2.0Y 100	2.5 120	1.8 120	<1.6 S	<1.6 S	2.0Y 110	2.9Y 110	<1.7 S	<1.9 S	<1.6 S
26	2.9 110	1.7 120	<1.6 S	<1.6 S	<1.3 S	<1.7 S	3.8 110	1.7 110	2.4H 120	3.8 110	4.1 110	G	G	G	G	2.6 120	<2.5 B	2.6 100	2.3 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
27	<1.8 S	8.0Y 110	<1.6 S	<2.3 S	2.8 100	1.4 100	4.8 S 100	G	G	2.4 110	3.0 110	G	G	G	G	<2.6 B	<2.5 B	<1.7 S	<1.6 S	2.7Y 110	<1.6 S	<1.6 S	<1.6 S	<1.6 S
28	<1.3 S	<1.6 S	3.7 100	<1.6 S	<1.3 S	<1.6 S	<1.6 S	<2.4 B	<2.4 B	3.0 150	2.8 110	3.1 110	2.8 110	G	G	G	1.8 100	3.6 100	2.4Y 100	<1.6 S	<1.6 S	<1.6 S	2.2 110	<1.6 S
29	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.3 S	<1.6 S	<1.6 S	G	2.2 140	3.0H 120	3.6 130	3.3 120	3.4 120	4.2Y 100	3.2 120	3.0 120	2.3 120	3.0 110	2.0 120	<1.6 S	<1.6 S	<1.6 S	<1.6 S	5.0 120
30	4.1 110	4.8 110	7.8 110	<1.6 S	<1.7 S	<1.6 S	6.0Y 110	G	G	G	3.0 140	G	3.2 140	6.8Y 110	3.0 130	2.6 120	2.0 150	<1.6 S	<1.6 S	<1.8 S	<1.6 S	<1.6 S	2.7 120	2.2 120
31																								
Median	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.8	1.7	2.2	<2.8	3.0	**	**	**	**	**	**	2.1	<1.7	<1.6	<1.6	<1.6	<1.6	<1.6
Count	30	30	30	30	29	29	30	29	27	30	29	29	30	30	29	27	26	29	30	26	30	30	30	30

** MEDIAN fEs LESS THAN MEDIAN foE, OR LESS THAN LOWER FREQUENCY LIMIT OF RECORDER

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 69

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M1500) F2 (Characteristic), ____ (Unit), November (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Lang 77.1°W 75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.0	F^{S}	(1.9)^{S}	(2.2)$^{F}_{S}$	(2.2)$^{F}_{S}$	2.1	2.0	2.2	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	(2.3)^{S}	2.3	2.2	2.1	(2.2)^{S}	2.1	2.1	2.1
2	2.2	2.0	2.0	2.1	2.2	2.1	2.1	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.3	(2.3)^{S}	2.3	2.2	2.0	2.1	2.2	2.1	2.0	2.1
3	2.2	2.1	2.0	2.0	2.2	2.1	2.2	2.3	2.4	2.3	2.1	2.4	2.2	2.3	2.4	2.2	2.3	2.4	2.2	2.1	2.1	2.0	1.9	1.9
4	1.9	1.8	1.8	2.0	2.2	2.2	1.8^{H}	(2.3)^{P}	2.3	2.3	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	(2.4)^{S}	2.1	2.2$^{F}_{S}$	2.1	2.1	2.1
5	(2.1)$^{F}_{S}$	(2.0)$^{F}_{S}$	J^{F}	(2.2)^{F}	(2.3)$^{F}_{S}$	(2.2)^{F}	(2.1)$^{P}_{F}$	2.3	2.4	(2.5)^{S}	2.3	2.3	2.1	2.3	2.2	2.3	2.4	2.4	2.3	2.2	2.1	2.0	2.1^{F}	2.0
6	(2.1)$^{F}_{A}$	(2.0)$^{P}_{S}$	2.0	2.1	(2.2)$^{F}_{S}$	(2.1)$^{P}_{F}$	(2.2)$^{P}_{F}$	2.3^{F}	2.4^{F}	2.4	(2.5)$^{P}_{S}$	2.4	2.4	2.3	2.3	2.3	2.4	(2.3)^{F}	(2.2)^{F}	(2.3)^{F}	2.3	(2.2)$^{F}_{A}$	(2.0)^{F}	(1.9)$^{F}_{A}$
7	(2.0)$^{F}_{S}$	1.9^{F}	(2.0)$^{F}_{A}$	(2.2)^{F}	(2.1)^{F}	(2.1)^{F}	2.2^{F}	(2.5)^{F}	2.4	2.4	2.4	2.3	2.3	2.2	2.3	2.2	2.4	2.4	(2.3)^{S}	(2.3)^{S}	2.1	2.1	2.1	2.1
8	2.0$^{F}_{S}$	2.0	2.1	2.1	2.0	2.1	2.1	(2.4)$^{P}_{S}$	2.5	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	1.9	2.1	(2.0)^{S}	(2.0)^{S}	(2.1)^{S}	2.2
9	2.2^{F}	2.1^{F}	1.8^{F}	2.0^{F}	2.1^{F}	C	(2.1)$^{P}_{S}$	2.4	2.4	2.4	2.4	2.2	2.1	2.2	2.3	2.3	2.3	2.4	2.1	2.2	2.3	2.2	2.1	(2.1)$^{F}_{S}$
10	2.1$^{F}_{S}$	2.0^{F}	2.0	2.0	2.0^{F}	2.2^{F}	2.4	2.4	2.4	2.4$^{F}_{S}$	2.2	2.3	2.3	2.3	2.2	2.2	2.4	2.5	2.2	2.3	2.2	2.2	2.1	2.0
11	2.1	1.9	2.0	2.1	2.1	2.2	2.0^{F}	2.3	2.5	2.3	2.2	2.3	2.0	2.2	2.2	(2.3)^{P}	C	(2.2)$^{P}_{S}$	2.2	2.1	2.2	2.1	2.1	2.0
12	2.0	1.9	(2.0)$^{P}_{S}$	(2.1)$^{P}_{S}$	J^{F}	(2.0)$^{F}_{S}$	(2.0)$^{P}_{F}$	(2.1)$^{P}_{S}$	(2.3)^{S}	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.0	1.9	1.9
13	2.0	J^{S}	J^{S}	J^{S}	2.4	2.2^{F}	1.9^{F}	2.3	2.4	2.2	2.3	2.3	2.1	2.2	2.2	2.2	2.4	2.3	2.2	2.3	2.1	2.1	2.2	2.2
14	2.1	2.1	2.2	2.1^{F}	2.1^{F}	(2.1)$^{F}_{S}$	2.1^{F}	2.3	2.4	2.3	2.4	2.3	2.3	2.3	2.2	2.3	2.2	2.3	2.2	2.1	2.2	2.2	2.0	2.0
15	2.0	2.0	1.9	1.9	2.1	2.1	1.9	2.1	2.3	2.1	C	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.1	2.2	2.2	1.9^{F}	1.9	1.9
16	1.8	(2.0)^{F}	(2.1)$^{F}_{S}$	(2.0)$^{F}_{S}$	2.1	2.2	2.1	2.2	2.3	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.3^{S}	2.2	2.1	2.3	2.3	2.1^{F}	2.0^{F}	2.0^{F}
17	(1.9)^{F}	(2.0)$^{F}_{S}$	2.1^{F}	2.3^{F}	2.1^{F}	(1.9)^{F}	2.0	2.1	2.3	(2.4)$^{P}_{F}$	2.4	2.4	(2.4)$^{P}_{S}$	2.3	2.3	2.4	2.4	(2.2)$^{P}_{S}$	(2.3)$^{P}_{S}$	(2.2)$^{F}_{S}$	2.2	(2.2)$^{P}_{S}$	2.3^{F}	2.0^{F}
18	2.2^{F}	(2.1)^{F}	(2.0)^{F}	(2.0)$^{F}_{S}$	(2.0)^{F}	(2.2)$^{S}_{F}$	(2.1)$^{S}_{F}$	2.2	2.3	2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.2	2.3	2.0	2.1	J^{A}	2.0^{F}	1.9^{F}	(2.1)^{F}
19	2.1$^{S}_{J}$	F^{S}	2.2^{F}	(2.1)$^{F}_{S}$	2.0^{F}	A	P^{F}	2.1^{F}	2.0^{F}	(1.9)$^{F}_{S}$	F^{H}	(1.5)$^{A}_{S}$	1.7	1.6^{F}	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.1	2.0^{F}
20	1.9^{F}	2.0^{F}	(2.1)^{F}	(2.1)$^{P}_{F}$	F	F	E	2.3	2.4	2.4	2.2	2.2	2.2	2.0	2.1	2.2	2.2	2.2	2.2	2.0	(2.0)$^{F}_{S}$	1.9^{F}	(1.8)$^{F}_{S}$	(2.0)$^{F}_{S}$
21	2.0^{F}	(2.0)$^{F}_{S}$	(2.0)^{F}	2.0$^{F}_{S}$	2.1^{F}	2.0	2.0	2.3	2.5^{F}	2.3	2.2	2.4	2.4^{H}	2.2	2.2	2.3	2.4	2.3	2.4	2.3^{F}	2.3^{F}	2.2^{F}	2.2^{F}	2.0^{F}
22	2.0^{F}	2.0^{F}	2.0^{F}	2.0^{F}	(2.1)$^{P}_{S}$	2.2	2.2^{F}	2.3^{F}	2.3	2.4	2.5	2.4	2.3	2.3	2.4	2.4	2.3	2.3^{F}	2.4	2.2	2.2	2.4	J^{S}	J^{S}
23	1.9^{F}	(2.0)^{S}	(2.3)$^{F}_{S}$	(2.4)$^{F}_{S}$	(1.8)$^{F}_{S}$	2.6^{F}	(2.2)$^{F}_{S}$	(2.5)$^{F}_{S}$	2.5^{F}	2.6	2.4	2.4	(2.2)$^{P}_{H}$	2.2	2.3	2.3	(2.3)$^{F}_{S}$	2.3^{F}	(2.1)$^{F}_{S}$	(2.2)$^{F}_{S}$	2.1^{F}	2.1	2.2^{F}	2.1^{F}
24	2.0^{F}	2.0^{F}	1.9	1.9	2.1	2.0	2.0^{F}	2.3^{F}	2.5	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.1	2.2	2.2	2.1	2.1	1.9
25	1.9^{F}	2.0^{F}	(1.9)^{F}	2.2^{F}	(2.3)^{F}	2.0^{F}	1.9^{F}	2.2^{F}	2.5	2.4.	2.3	2.3	2.3	2.2	2.2	2.4	2.3	2.3	2.1^{F}	2.2^{F}	(2.3)$^{F}_{S}$	2.2^{F}	2.2^{F}	2.1^{F}
26	2.0^{F}	2.0	2.1^{F}	2.1^{F}	2.1	2.0	2.0	2.2	2.4	2.4	2.3	2.4	2.4	2.2^{H}	2.2	2.3	2.3	2.3	2.2	2.2	2.1	2.2^{F}	2.2	2.1
27	1.9^{F}	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.4	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.2^{F}	2.3$^{S}_{J}$	2.1	2.3	2.3^{F}	2.2
28	2.0	1.9	1.9	2.0	2.0	2.2	2.1	2.2	2.4	2.4	2.3	2.3	2.3	2.2	2.2	(2.3)^{P}	2.3	2.2	2.0	2.2	2.1	1.9	2.0	2.0
29	2.0	1.9	1.9	2.0	2.1	2.2	2.0	2.1	2.4	2.5	2.2	2.1	2.3	2.2	2.2	2.2	2.2	(2.2)$^{P}_{S}$	2.2	2.3	2.1	1.9	2.0	2.0^{F}
30	1.9	2.0^{F}	1.9^{F}	2.0	2.1	2.0	2.0	2.2	2.4	2.3	2.3	2.3	2.0^{H}	2.2	2.3	2.3	2.2	2.2	2.2	2.0	2.1	2.1	2.1	2.0
31																								
Median	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.0
Count	30	27	28	29	28	27	28	30	30	30	28	30	30	30	30	30	29	30	30	30	29	30	29	29

Sweep 1.0 Mc to 25.0 Mc in 1.35 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 70

Central Radio Propogation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M3000) F2 (Characteristic) ____ (Unit) November (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W 75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	F	(2.9) S	(3.3) F S	(3.2) F S	3.1	3.0	3.3	3.5	3.4	3.3	3.2	3.2	3.2	3.2	3.3	(3.3) S	3.4	3.3	3.1	(3.3) S	3.1	3.1	3.1
2	3.2	3.0	3.0	3.1	3.2	3.1	3.1	3.4	3.4	3.5	3.4	3.3	3.3	3.2	3.3	(3.4) S	3.3	3.3	3.0	3.1	3.2	3.1	3.0	3.1
3	3.2	3.1	3.0	3.0	3.2	3.1	3.2	3.4	3.5	3.3	3.1	3.5	3.2	3.3	3.5	3.3	3.4	3.5	3.2	3.1	3.1	3.0	2.9	2.8
4	2.8	2.7	2.7	3.0	3.2	3.2	28 H	(3.3) P S	3.4	3.4	3.3	3.3	3.2	3.4	3.2	3.3	3.3	3.3	(3.4) S	3.1	3.2 J S	3.1	3.1	3.1
5	(3.1) F S	(3.0) F S	F	(3.2) F	(3.3) F S	(3.3) F	(3.1) P F	3.4	3.5	(3.6) S	3.3	3.4	3.1	3.3	3.2	3.4	3.5	3.5	3.3	3.2	3.1	3.0	3.1 F	3.0
6	(3.2) F P	(2.9) P S	3.0	3.1	(3.2) F S	(3.1) P F	(3.3) J F	3.4 F	3.5 F	3.5	(3.6) P S	3.5	3.5	3.3	3.4	3.4	3.5	(3.4) F	(3.2) F	(3.3) F	3.4	(3.2) F A	(3.0) F	(2.9) F A
7	(3.0) F S	2.9 F	(3.0) F A	(3.2) F	(3.1) F	(3.1) F	3.2 F	(3.6) F	3.5	3.5	3.5	3.3	3.3	3.3	3.3	3.3	3.4	3.5	(3.3) S	(3.4) S	3.1	3.1	3.1	3.1
8	3.0 F S	3.0	3.1	3.1	3.0	3.1	3.1	(3.4) P S	3.6	3.4	3.4	3.2	3.2	3.2	3.3	3.4	3.4	3.4	2.8	3.1	(3.0) S	(3.0) S	(3.1) S	3.2
9	3.2 F	3.2 F	2.7 F	3.0 F	3.1 F	C	(3.1) P S	3.5	3.4	3.5	3.5	3.3	3.1	3.3	3.3	3.3	3.4	3.5	3.1	3.2	3.3	3.2	3.1	(3.1) F S
10	3.1 F S	3.0 F	3.0	3.0	3.0 F	3.2 F	3.5	3.4	3.5	3.4 S J	3.2	3.3	3.3	3.3	3.2	3.2	3.4	3.5	3.2	3.4	3.2	3.2	3.1	3.0
11	3.1	2.9	3.0	3.1	3.1	3.3	3.0 F	3.3	3.6	3.4	3.3	3.4	3.0	3.3	3.2	(3.3) P	C	(3.3) P S	3.3	3.1	3.2	3.1	3.1	3.0
12	3.0	2.9	(3.0) P S	(3.1) P S	J F	(3.0) F S	(3.0) P F	(3.1) P S	(3.4) S	3.3	3.3	3.3	3.2	3.2	3.1	3.2	3.2	3.3	3.2	3.2	3.1	3.0	2.8	2.9
13	3.0	J S	J S	J S	3.4	3.2 F	2.9 F	3.3	3.5	3.3	3.4	3.3	3.1	3.3	3.2	3.3	3.4	3.4	3.2	3.3	3.2	3.2	3.2	3.2
14	3.2	3.1	3.2	3.1 F	3.2 F	(3.2) F S	3.2 F	3.3	3.5	3.4	3.5	3.4	3.3	3.3	3.3	3.4	3.2	3.4	3.3	3.2	3.3	3.3	3.0	3.0
15	3.0	2.9	2.8	2.9	3.1	3.1	2.9	3.1	3.3	3.1	C	3.2	3.2	3.2	3.2	3.1	3.2	3.2	3.1	3.3	3.3	2.9 F	2.8	2.8
16	2.7	(3.0) F	(3.1) F S	(3.0) F S	3.2	3.2	3.1	3.3	3.4	3.4	3.2	3.1	3.2	3.2	3.2	3.3	3.3 J S	3.3	3.1	3.3	3.4	3.1 F	3.0 F	3.0 F
17	(2.8) F	(3.0) F S	3.1 F	3.4 F	3.1 F	(2.9) F	3.0	3.1	3.3	(3.5) P F	3.4	3.5	(3.5) P S	3.3	3.3	3.5	3.5	(3.2) P S	(3.3) P S	(3.3) F S	3.3	(3.2) P S	3.3 F	3.0 F
18	3.2 F	(3.1) F	(2.9) F	(3.0) F S	(3.0) J F	(3.2) S F	(3.1) S F	3.3	3.3	3.6	3.3	3.2	3.2	3.0	3.0	3.1	3.1	3.3	3.0	3.1	J A	3.0 F	2.8 F	(3.1) F
19	3.2 S J	F S	3.3 F	(3.2) F S	3.0 F	A	F P	3.1 F	2.9 F	(2.9) F S	F H	(2.3) S A	2.6	2.5 F	3.1	3.0	3.0	2.9	2.9	3.0	3.0	3.0	3.1	3.0 F
20	2.9 F	3.0 F	(3.1) F	(3.1) P F	F	F P	E	3.3	3.4	3.5	3.2	3.3	3.2	3.0	3.1	3.2	3.2	3.2	3.2	3.0	(3.0) F S	2.9 F	(2.7) F S	(3.0) F S
21	3.0 F	(3.0) F S	(3.0) F S	3.0 F	3.1 F	3.0	3.0	3.3	3.5 F	3.4	3.2	3.4	3.4 H	3.2	3.2	3.4	3.5	3.3	3.4	3.3 F	3.3 F	3.2 F	3.2 F	3.0 F
22	3.0 F	3.0 F	3.0 F	3.0 F	(3.1) P S	3.2	3.2 F	3.3 F	3.4	3.4	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.3 F	3.4	3.2	3.2	3.4	J S	J S
23	2.9 F	(3.0) F S	(3.3) F S	(3.4) F S	(2.8) F S	3.6 F	(3.2) F S	(3.5) F S	3.5 F	3.6	3.5	3.5	(3.2) P H	3.3	3.3	3.4	(3.4) F S	3.4 F	(3.1) F S	(3.2) F S	3.1 F	3.2	3.2 F	3.1 F
24	3.0 F	3.0 F	2.9	2.8	3.1	3.0	3.0 F	3.4 F	3.6	3.5	3.5	3.4	3.2	3.2	3.2	3.3	3.4	3.4	3.2	3.3	3.2	3.1	3.1	2.9
25	2.9 F	3.0 F	(2.9) F	3.3 F	(3.4) F	3.0 F	2.9 F	3.2 F	3.5	3.4	3.4	3.4	3.3	3.3	3.2	3.4	3.4	3.4	3.1 F	3.2 F	(3.4) F S	3.3 F	3.2 F	3.2 F
26	3.0 F	3.0	3.1 F	3.1 F	3.1	3.0	3.0	3.2	3.4	3.5	3.4	3.5	3.5	3.3 H	3.2	3.4	3.4	3.3	3.3	3.2	3.1	3.2 F	3.3	3.1
27	2.9 F	2.9	2.9	2.9	2.9	3.0	3.0	3.3	3.4	3.3	3.4	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.2 F	3.4 J S	3.2	3.4	3.4 F	3.2
28	3.0	2.9	2.9	3.0	3.0	3.2	3.1	3.2	3.5	3.4	3.4	3.4	3.4	3.2	3.2	(3.4) P	3.3	3.2	3.0	3.2	3.1	2.9	3.0	3.0
29	3.0	2.9	2.8	3.0	3.1	3.2	3.0	3.1	3.5	3.6	3.2	3.1	3.3	3.2	3.2	3.2	3.3	(3.3) P S	3.3	3.3	3.1	2.9	3.0	3.0 F
30	2.8	3.0 F	2.9 F	3.0	3.1	3.0	3.0	3.2	3.4	3.4	3.4	3.4	2.9 H	3.3	3.3	3.4	3.2	3.2	3.3	3.1	3.0	3.1	3.1	3.0
31																								
Median	3.0	3.0	3.0	3.1	3.1	3.1	3.05	3.3	3.5	3.4	3.4	3.3	3.2	3.3	3.2	3.3	3.4	3.3	3.2	3.2	3.2	3.1	3.1	3.0
Count	30	27	28	29	28	27	28	30	30	30	28	30	30	30	30	30	29	30	30	30	29	30	29	29

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 71

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M 3000) F1 (Characteristic) , ____ (Unit) November (Month) , 1955

Observed at Washington, D. C.

Lat 38.7°N , Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P. , E.J.W.

Calculated by: K.D.B., R.C.M. , J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1								Q	L	L	L	L	L	L	L	L	Q									
2								Q	Q	L	L	L	L	L	L	L	Q									
3								Q	Q	L	L	L	L	(3.8) L	L	L	Q									
4								Q	Q	L	L	L H	L H	L	L	L	Q									
5								Q	L	L	L	L	L	L	L	L	Q									
6								Q	L	L	L	L	L	L	L	L	Q									
7								Q	Q	L	L	L	L	L	L	L	Q									
8								Q	L	L	L	L	L	L	L	L	Q									
9								Q	Q	Q	L	L H	L	(3.8) L	L	L	Q									
10								Q	Q	L	L H	L	L	L H	L	L	Q									
11								Q	Q	L	L	L	L	L	L	L	Q									
12								Q	Q	L	L H	L	L	L	L	L-	Q									
13								Q	L	L	L H	L H	L	L	L	L	Q									
14								Q	Q	L	L	L	L	L	L	L	Q									
15								Q	Q	L	L	L	L	L	L	L	Q									
16								Q	Q	L	L	L	L	L	L	L	Q									
17								Q	L	L	L	L	L	L	L	Q	Q									
18								Q	Q	Q	L	L	L	L	L	L	Q									
19								Q	L	(3.5) L	3.4	3.6	3.4	(3.4) L	(3.5) L H	L	Q									
20								B	L	L	L	L	L	L	B	L	Q									
21								Q	Q	L	L	L	L	L	L	L H	Q									
22								Q	Q	L H	L	L	L H	L	L	L	Q									
23								Q	Q	L	L	L	L	L	L	L	Q									
24								Q	Q	L	L	L	L	L	L	L	Q									
25								Q	Q	Q	L	L	L	L H	L	L	L									
26								Q	Q	L	L	L	L	L	L	L	Q									
27								Q	Q	L H	L	L	L	L	L	L	Q									
28								Q	L	L	L	L	L	L H	L	L	Q									
29								Q	Q	L	L	L H	L	L	L	L	Q									
30								Q	Q	L	L	L	L	L	L	L	Q									
31																										
Median									—	—	—	—	—	—	—	—	—									
Count									0	1	1	1	1	3	1	0	0									

Sweep 1.0 Mc to 25.0 Mc in 135 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 72

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M1500) E (Characteristic), ____ (Unit), November (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Lang 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: J.J.S., J.W.P., E.J.W.

Calculated by: K.D.B., R.C.M., J.M.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	(4.3)S	A	A	A	(4.3)A	(4.2)S	4.2	4.2	(4.2)S							
2								S	A	4.3H	A	4.3	(4.3)A	4.4	4.3	(4.4)P	(4.3)S							
3								S	A	A	A	A	4.2H	4.2	4.2	4.2	A							
4								A	(4.2)S	A	A	4.2	4.3	4.4	A	4.4	(4.1)S							
5								A	A	A	A	A	4.3H	4.2H	4.4H	4.4	A							
6								S	A	A	4.2	4.1	H	4.4	(4.4)A	4.4	A							
7								A	A	(4.3)H	4.2H	4.2	4.2	4.2	4.2	4.4	(4.4)S							
8								S	(4.2)S	(4.3)A	(4.3)A	4.2H	4.3H	(4.3)A	4.4	(4.3)A	A							
9								A	(4.3)S	4.3	4.4	A	17	A	A	A	A							
10								S	4.4	(4.4)P	4.5	4.1	4.1	4.4	4.4	A	4.4							
11								S	A	A	A	(4.4)P	4.4	4.5P	4.4	(4.3)P	4.2							
12								S	4.3A	4.2H	(4.2)P	4.3	4.3	4.3	4.4	4.3	(4.3)P							
13								A	4.4H	4.4H	4.3	4.3	4.4	4.3	4.3	4.3	4.4							
14								S	4.3	(4.2)S	(4.3)H	4.3	(4.3)H	4.3	4.3	A	R							
15								S	(4.3)S	(4.3)P	C	4.4	4.3	4.3	4.4	4.4	4.2H							
16								S	4.3H	4.3	A	4.4H	4.4	4.3	4.4	4.4	4.3							
17								S	H	A	(4.3)A	4.3	4.3	4.4	4.3	4.4	A							
18								S	A	A	4.2	A	A	A	(4.2)A	4.2H	4.4H							
19								S	F	(4.3)F	(4.3)H	4.2	4.3	4.2	4.4	A	A							
20								B	B	B	4.2	4.4H	(4.3)A	(4.4)F	B	B	B							
21								S	A	4.3	4.3	4.4	4.3	4.3	4.4	(4.4)B	B							
22								S	B	B	4.0	B	4.2	4.2	4.1B	B	4							
23								S	S	B	4.3	(4.3)P	4.3	4.4	(4.4)P	4.4	4.4							
24								S	B	4.2H	4.0	4.1	4.3	4.3	4.3	4.4	4.2H							
25								S	A	4.4	A	(4.4)A	A	4.4	(4.4)P	R	A							
26								S	A	A	A	4.4H	4.3	4.4	4.3H	4.4	B							
27								S	R	4.3H	4.1H	4.3	4.4	4.3	4.2	B	B							
28								B	B	B	A	A	(4.3)H	4.4	4.2	4.2	A							
29								S	4.3	4.2H	4.4	4.4H	4.4	4.4H	(4.4)B	(4.4)H	A							
30								S	4.0H	4.3	4.1H	4.4	4.4	4.2H	(4.2)H	A	4.2H							
31																								
Median								—	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.4	4.3	—						
Count								0	12	17	19	23	26	28	27	21	14	0						

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

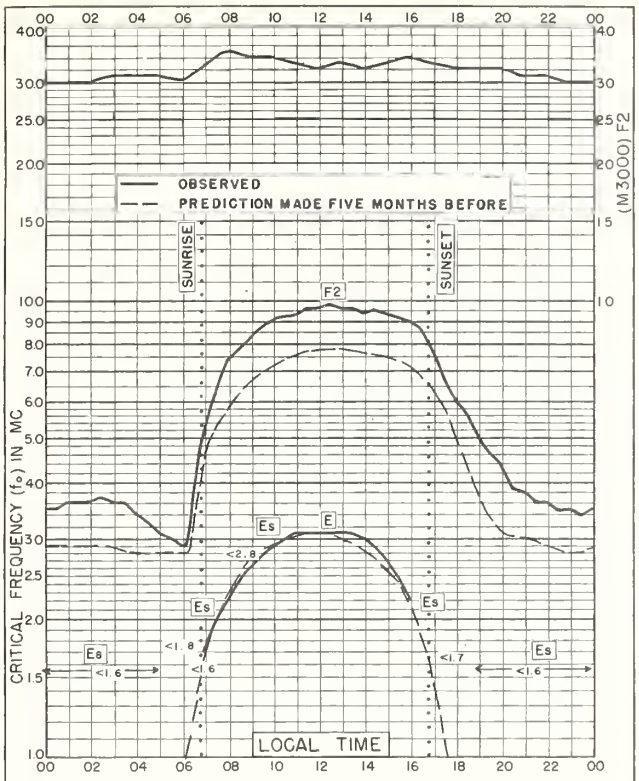


Fig. 1 WASHINGTON, D.C.
38.7° N, 77.1° W NOVEMBER 1955

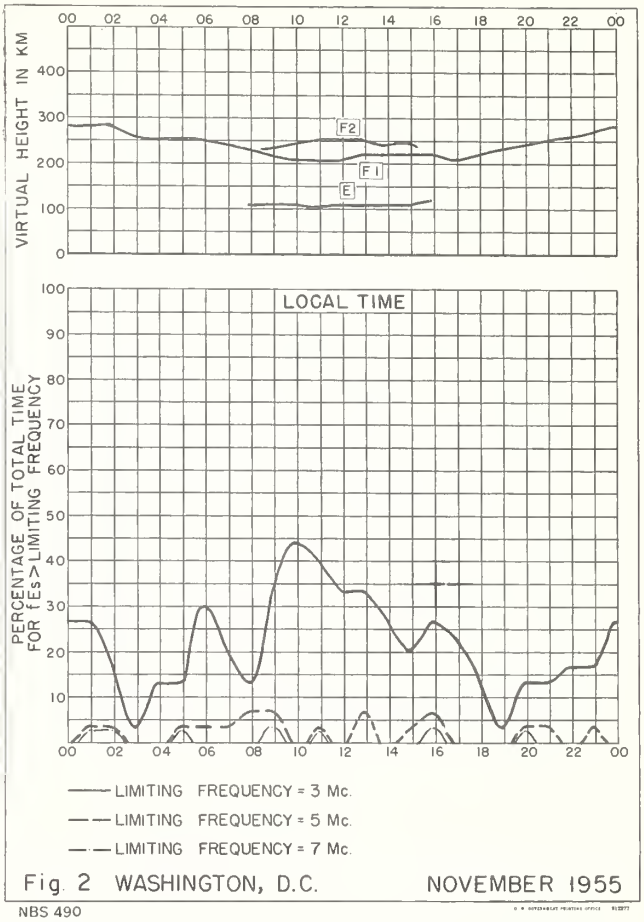


Fig. 2 WASHINGTON, D.C. NOVEMBER 1955

NBS 490

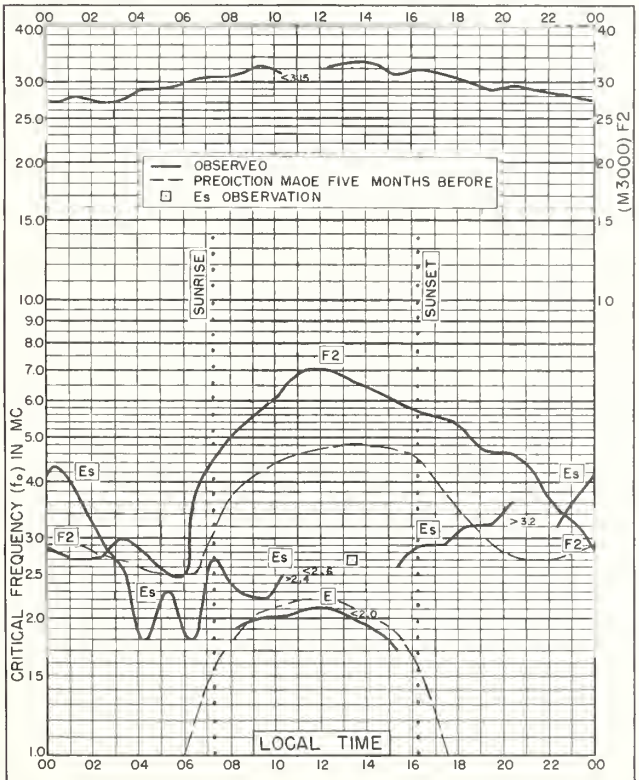


Fig. 3. TROMSO, NORWAY
69.7°N, 19.0°E OCTOBER 1955

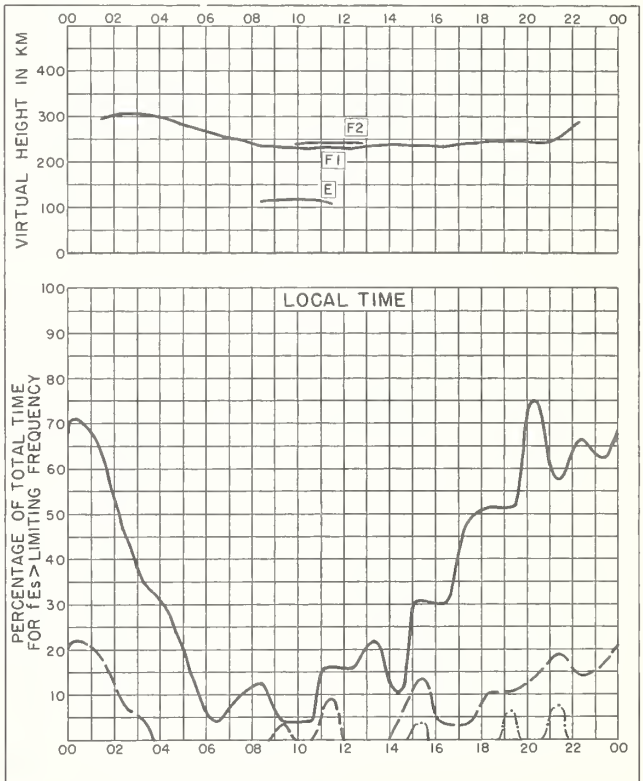


Fig. 4. TROMSO, NORWAY OCTOBER 1955

NBS 490

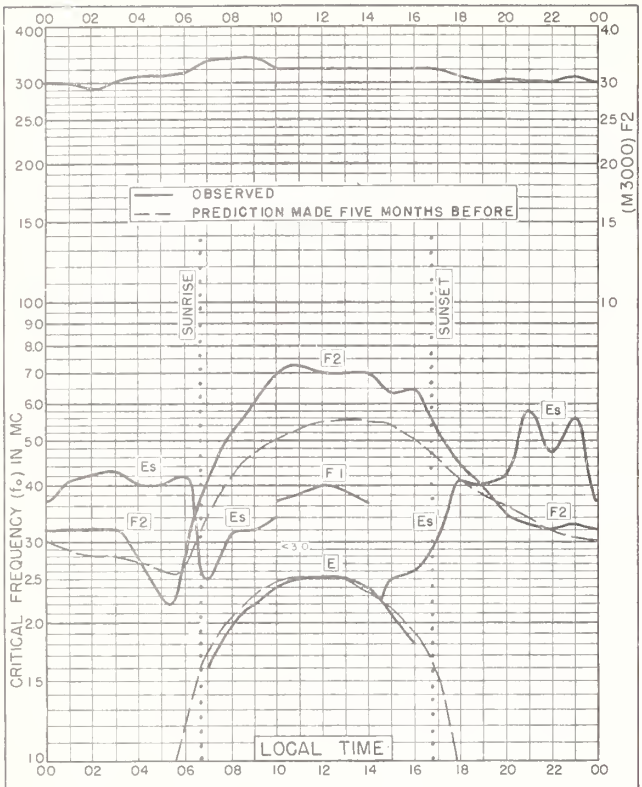
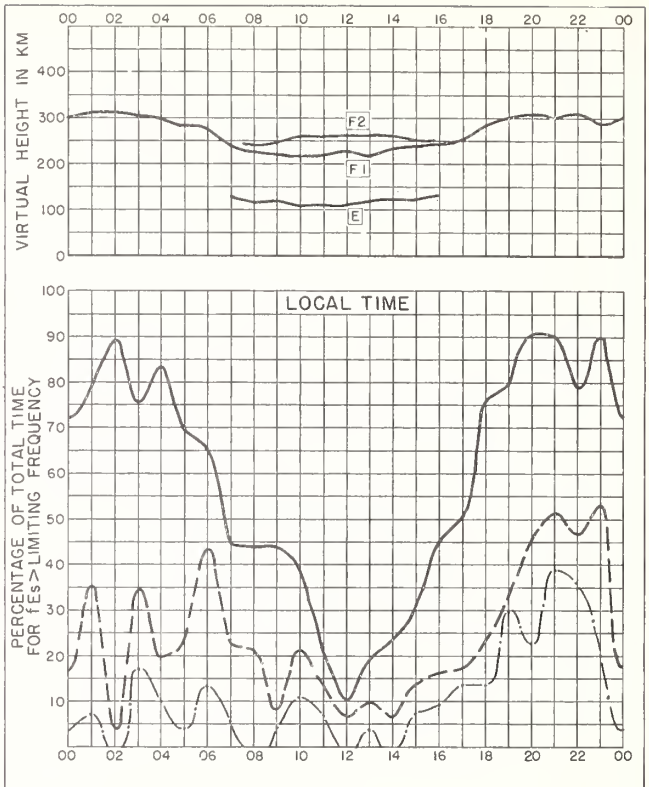


Fig. 5. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W OCTOBER 1955



OCTOBER 1955

Fig. 6. NARSARSSUAK, GREENLAND

NBS 490

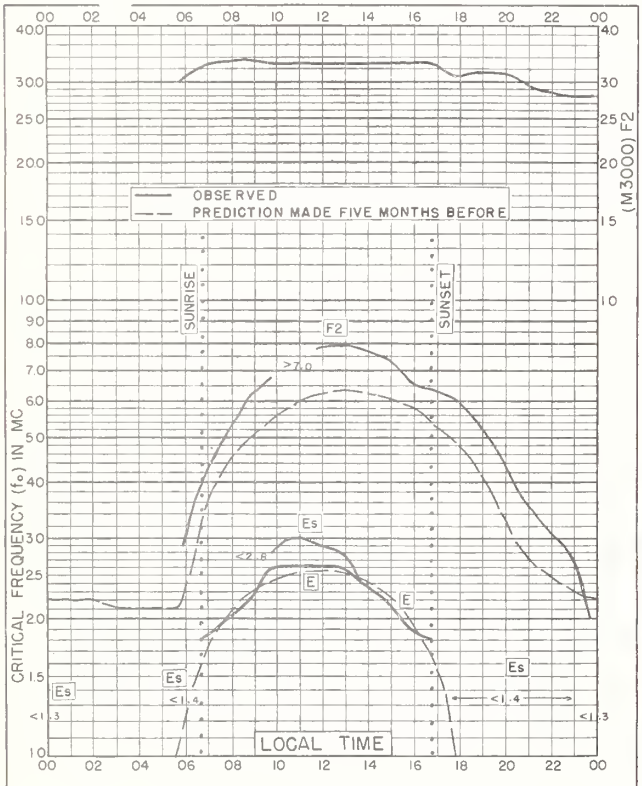


Fig. 7. OSLO, NORWAY
60.0°N, 11.1°E OCTOBER 1955

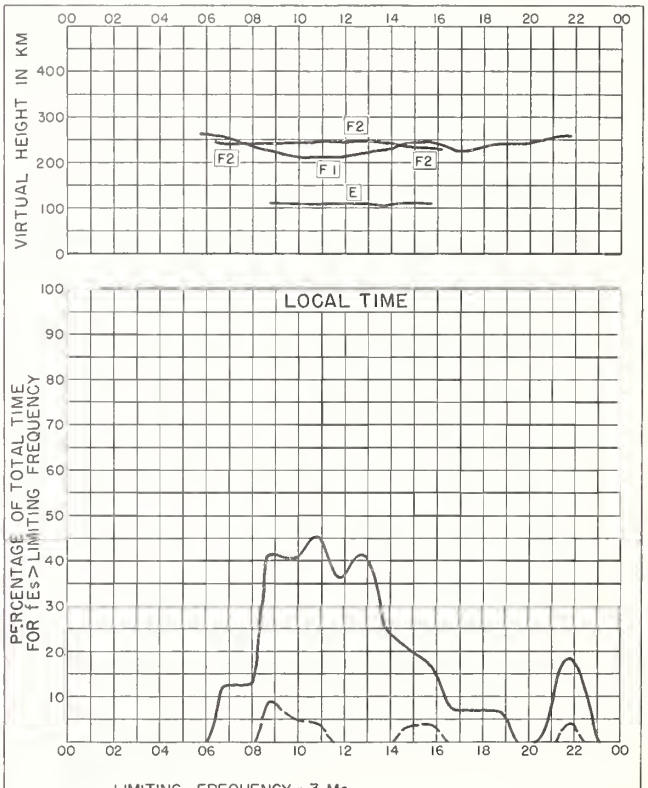


Fig. 8. OSLO, NORWAY OCTOBER 1955

NBS 490

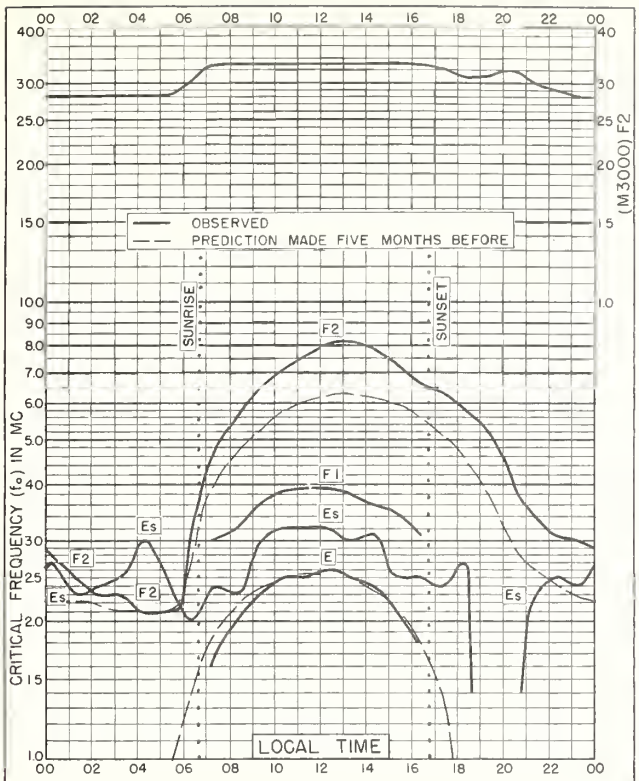


Fig. 9. UPSALA, SWEDEN
59.8°N, 17.6°E OCTOBER 1955

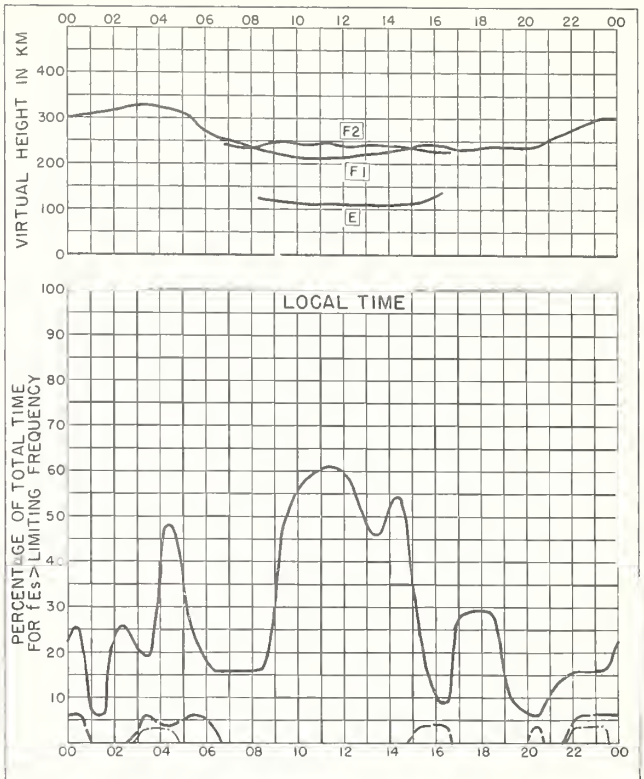


Fig. 10. UPSALA, SWEDEN OCTOBER 1955

NBS 490

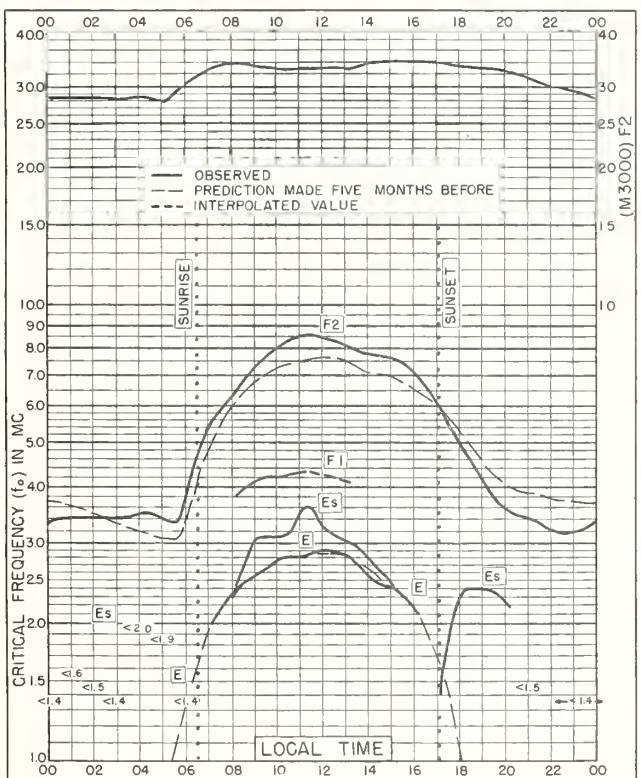


Fig. 11. ADAK, ALASKA
51.9°N, 176.6°W OCTOBER 1955

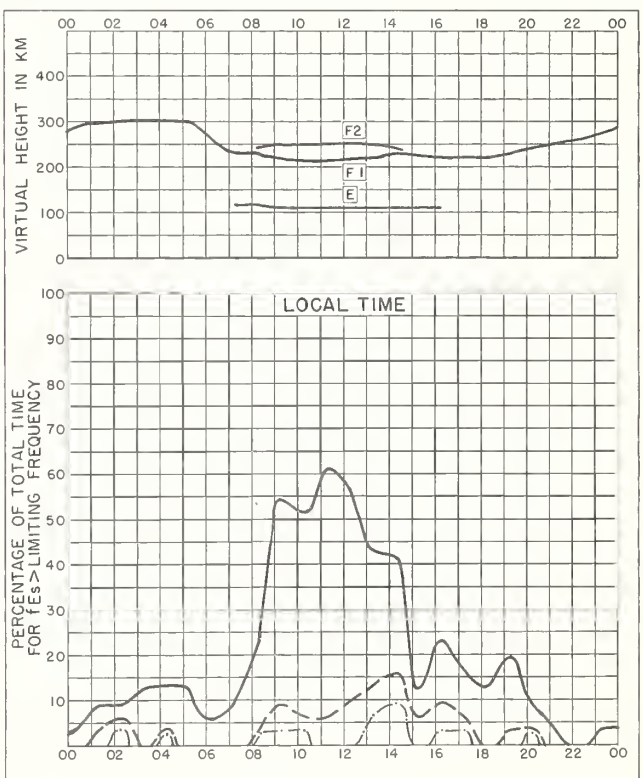


Fig. 12. ADAK, ALASKA OCTOBER 1955

NBS 490

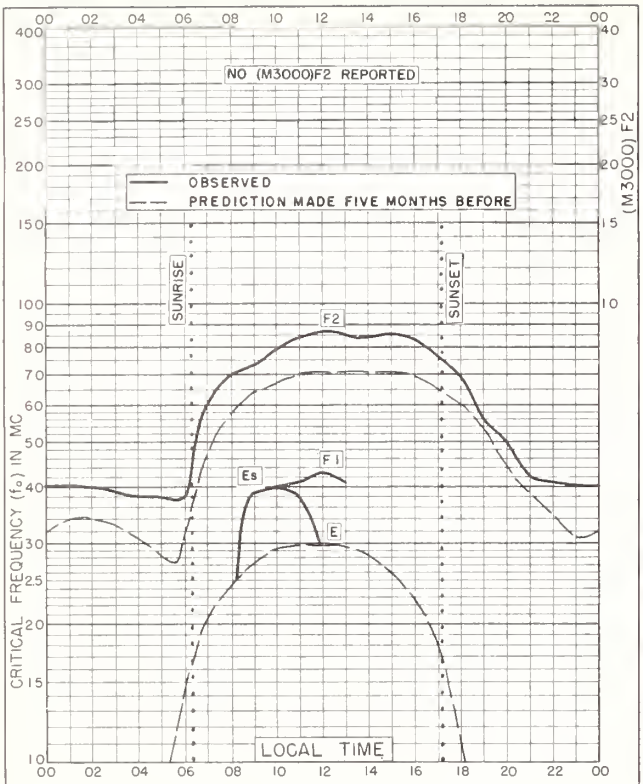


Fig. 13. GRAZ, AUSTRIA
47.1°N, 15.5°E OCTOBER 1955

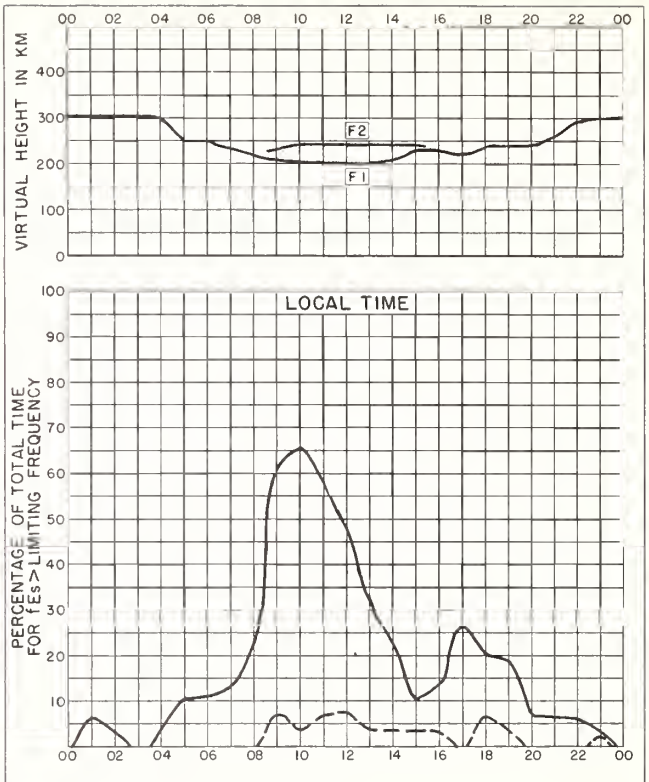


Fig. 14. GRAZ, AUSTRIA OCTOBER 1955

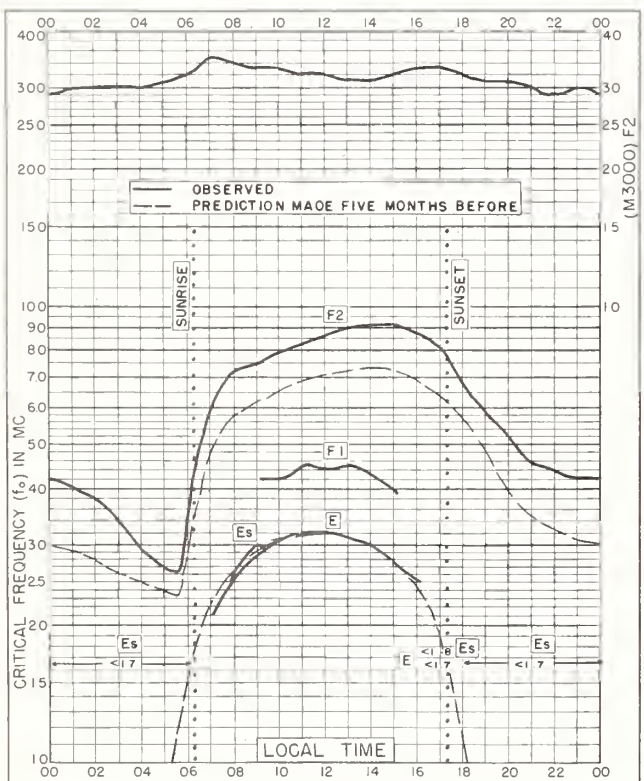


Fig. 15. FT. MONMOUTH, NEW JERSEY
40.3°N, 74.1° W OCTOBER 1955

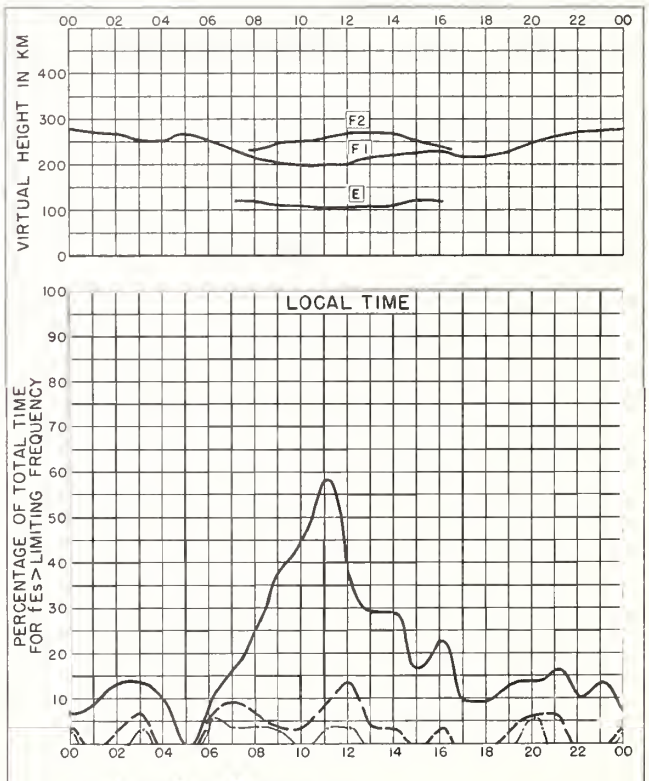


Fig. 16. FT. MONMOUTH, NEW JERSEY OCTOBER 1955

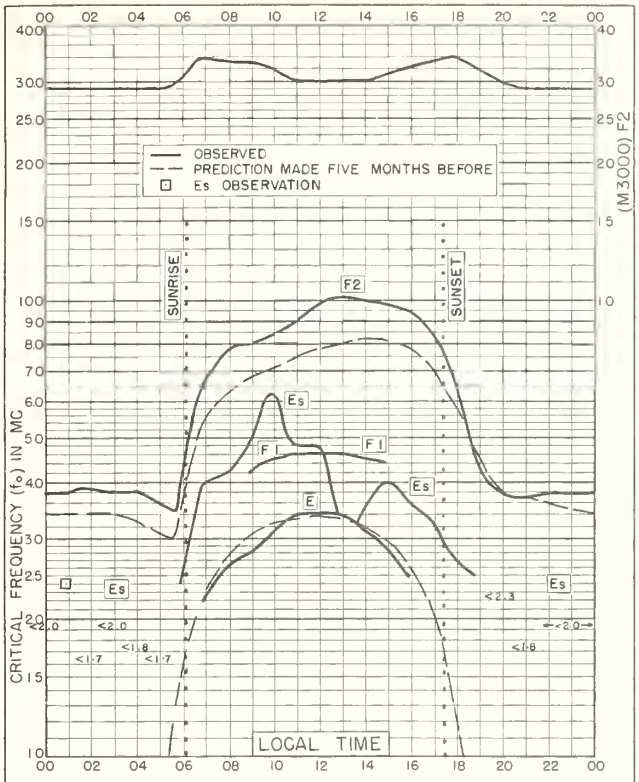


Fig. 17. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W OCTOBER 1955

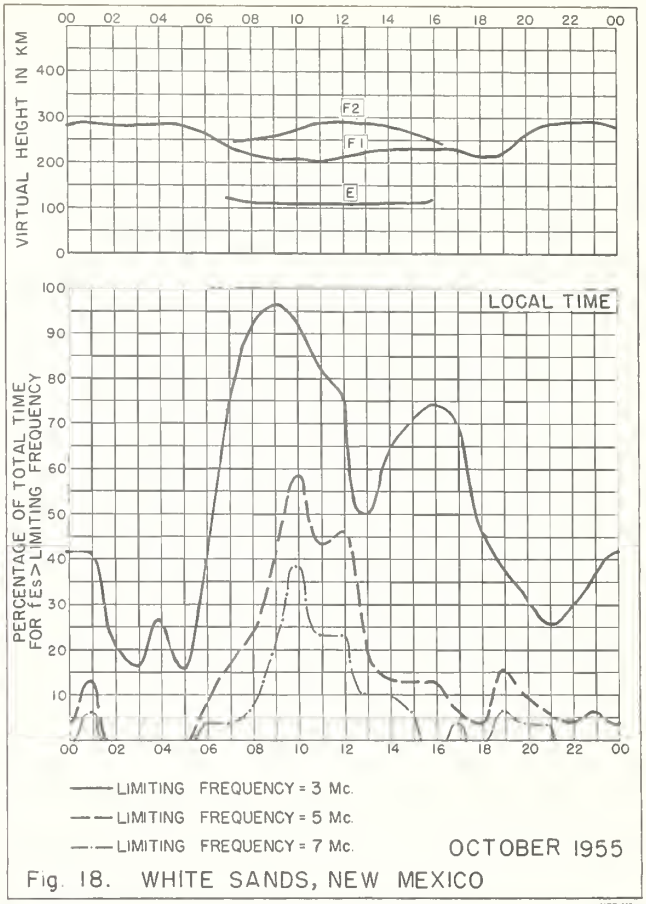


Fig. 18. WHITE SANDS, NEW MEXICO OCTOBER 1955

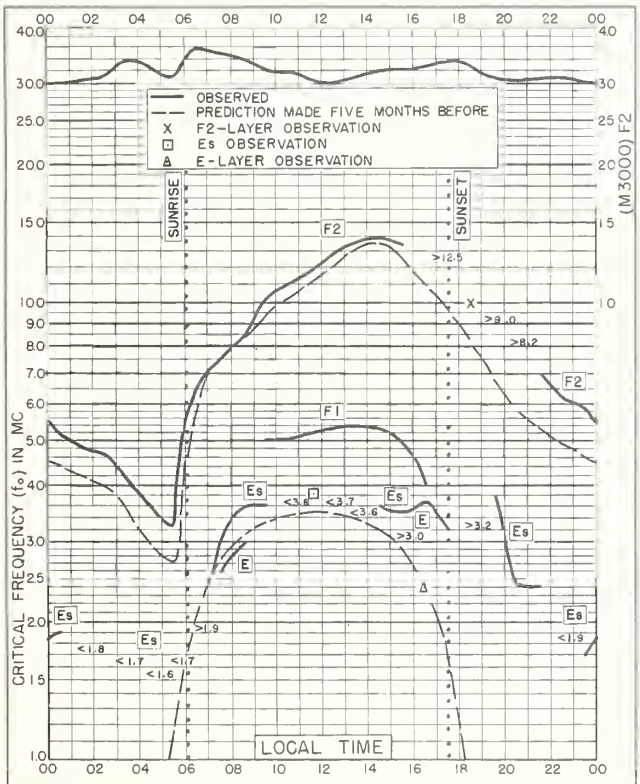


Fig. 19. OKINAWA I.
26.3°N, 127.8°E OCTOBER 1955

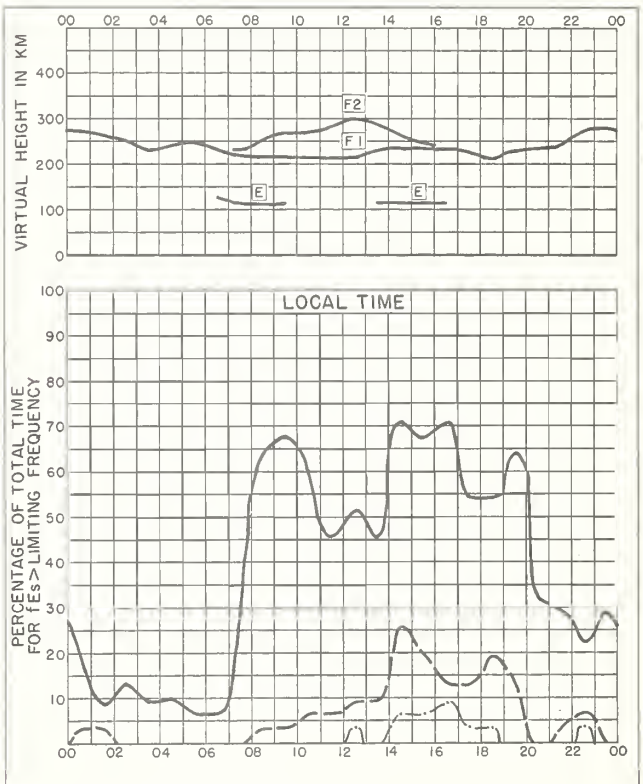


Fig. 20. OKINAWA I. OCTOBER 1955

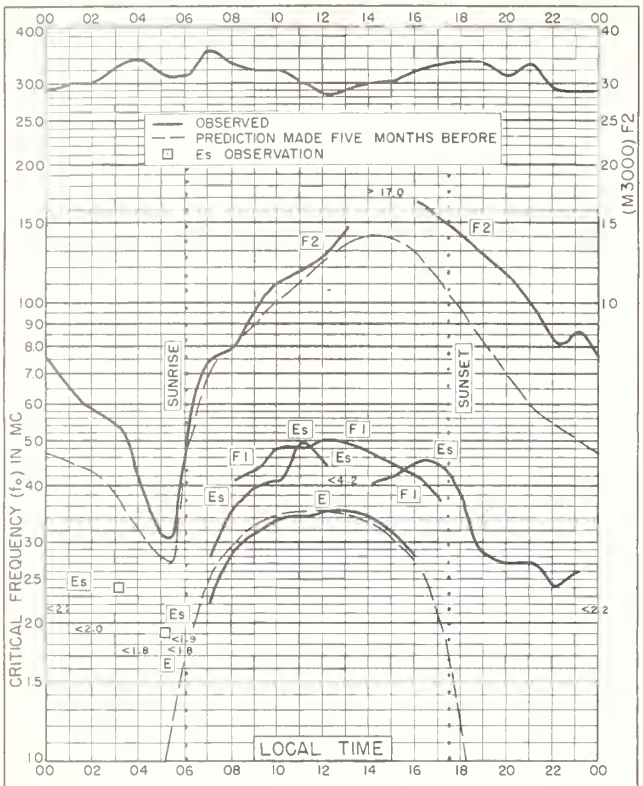


Fig. 21. FORMOSA, CHINA
25.0°N, 121.5°E OCTOBER 1955

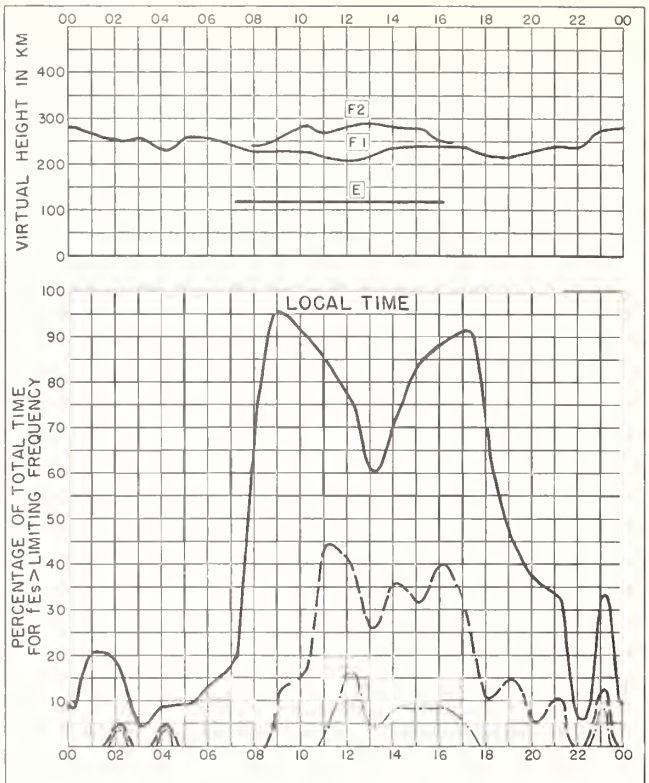


Fig. 22. FORMOSA, CHINA OCTOBER 1955

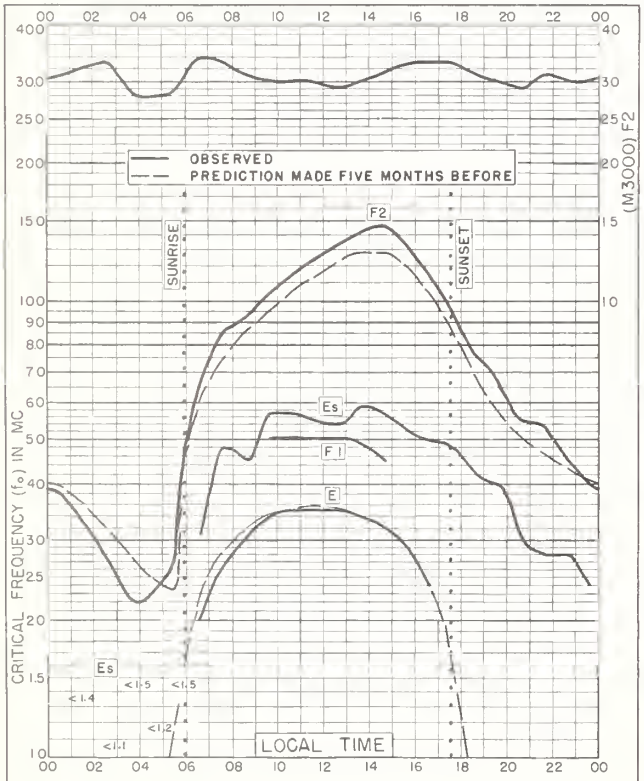


Fig. 23. MAUI, HAWAII
20.8°N, 156.5°W OCTOBER 1955

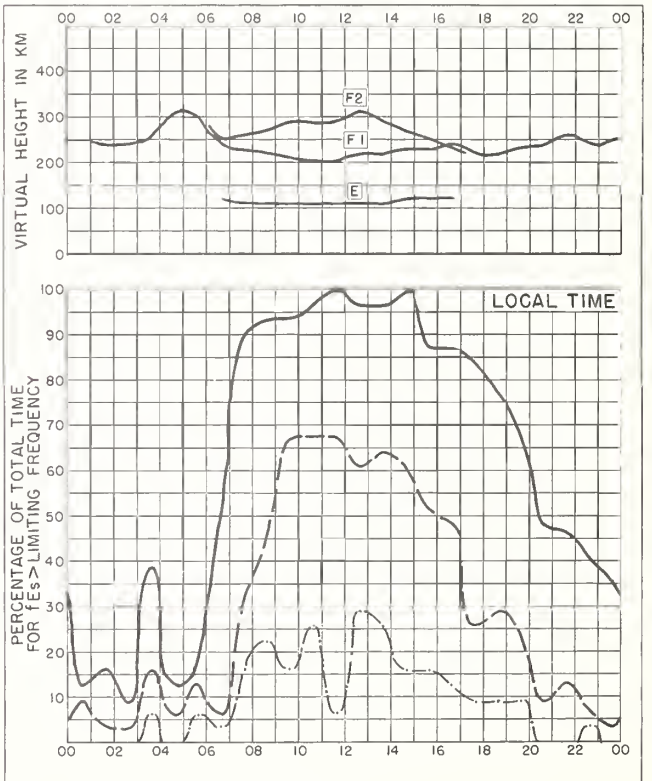


Fig. 24. MAUI, HAWAII OCTOBER 1955

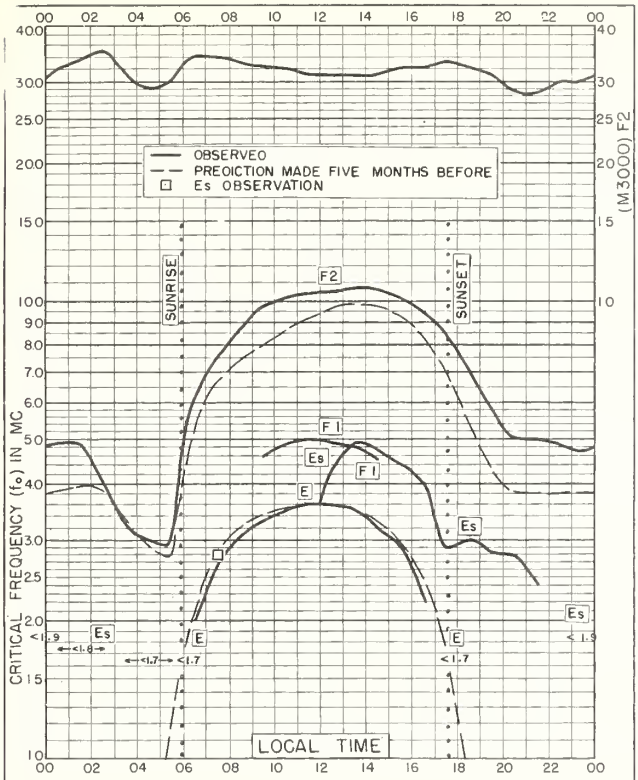


Fig. 25. PUERTO RICO, W.I.
18.5°N, 67.2°W OCTOBER 1955

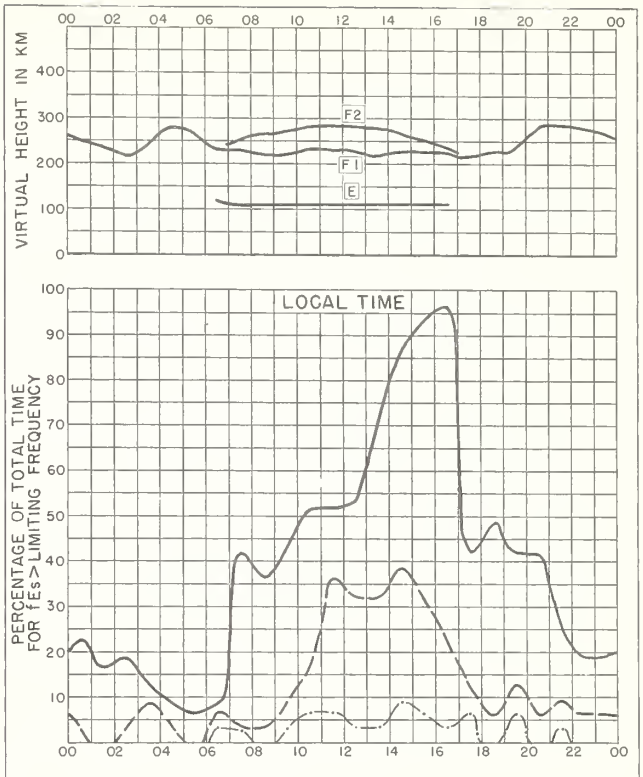


Fig. 26. PUERTO RICO, W.I. OCTOBER 1955

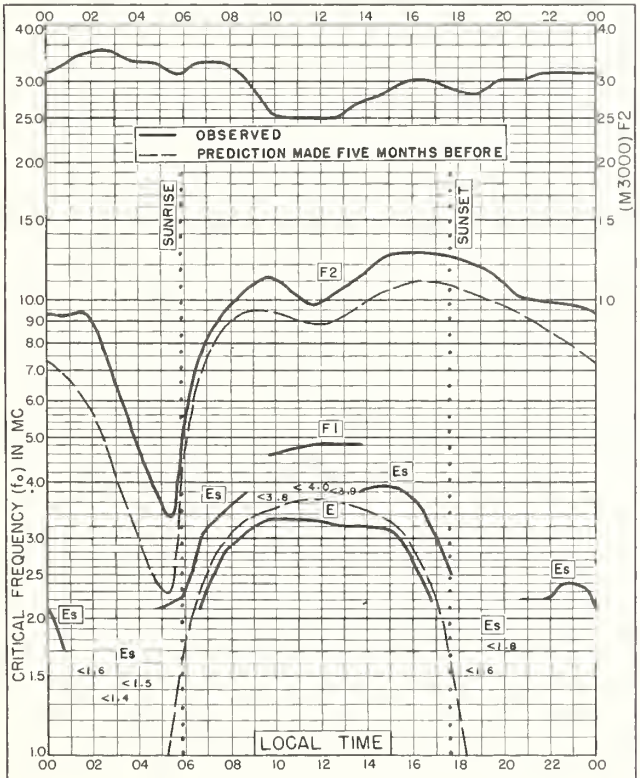


Fig. 27. GUAM I.
13.6°N, 144.9°E OCTOBER 1955

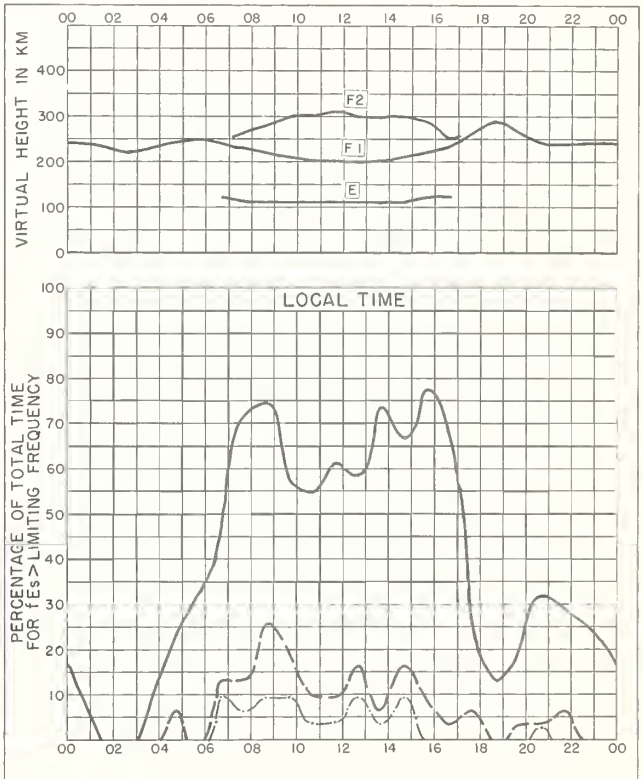


Fig. 28. GUAM I. OCTOBER 1955

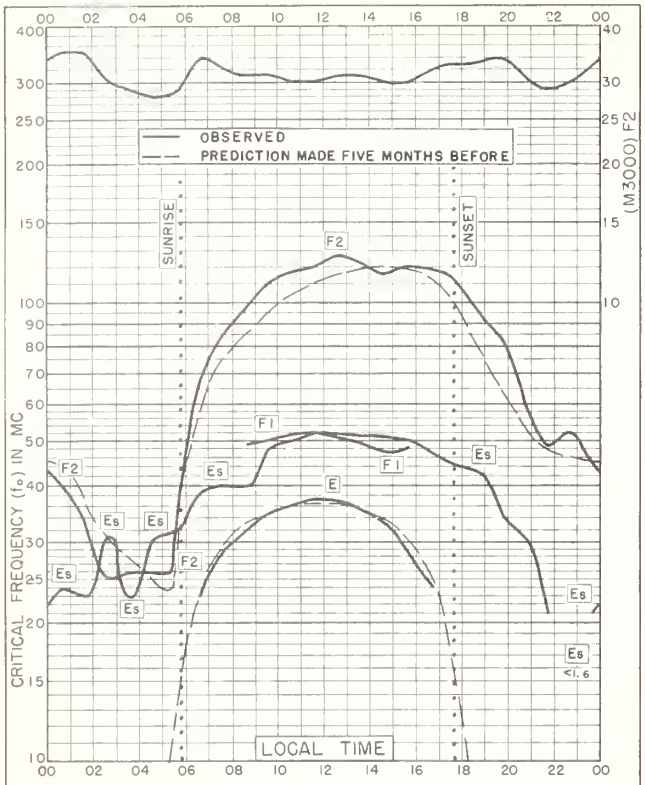


Fig. 29. PANAMA CANAL ZONE
9.4°N, 79.9° W OCTOBER 1955

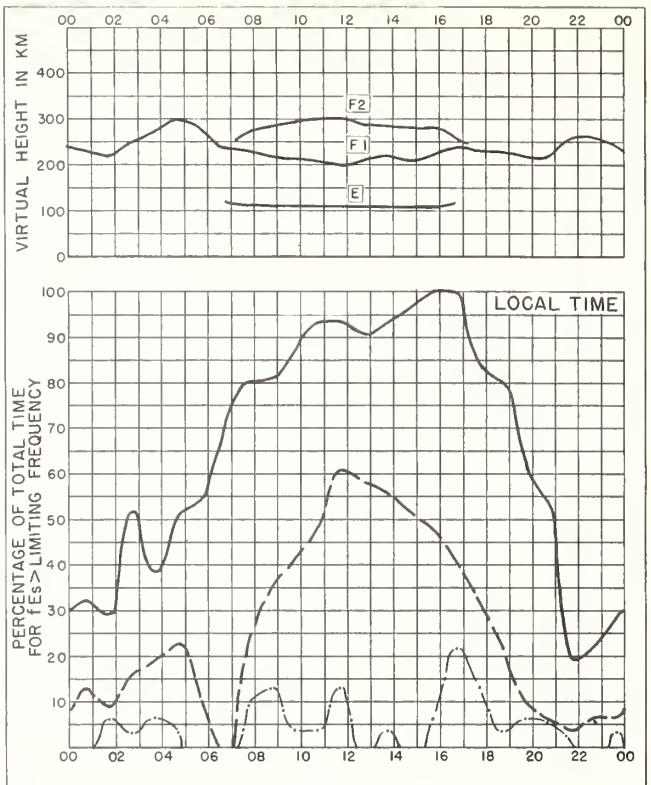


Fig. 30. PANAMA CANAL ZONE OCTOBER 1955

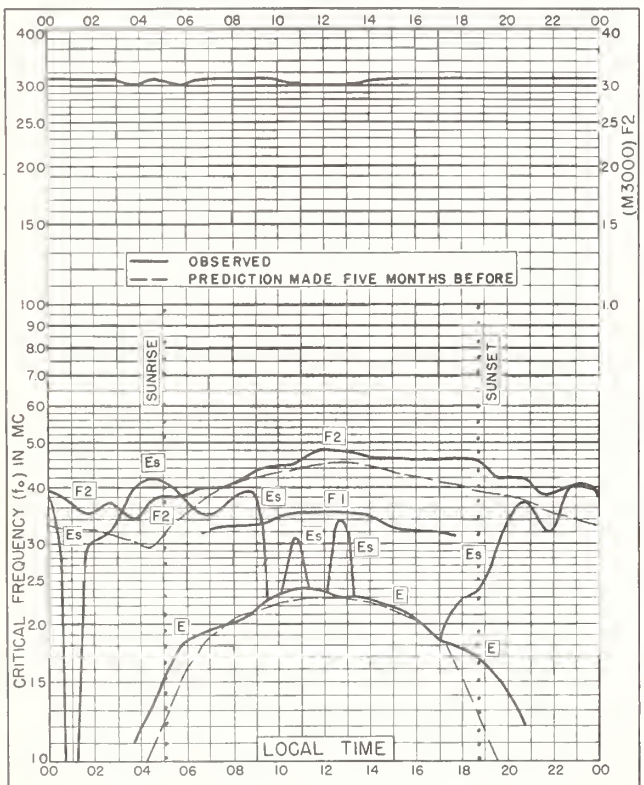


Fig. 31. RESOLUTE BAY, CANADA
74.7°N, 94.9° W SEPTEMBER 1955

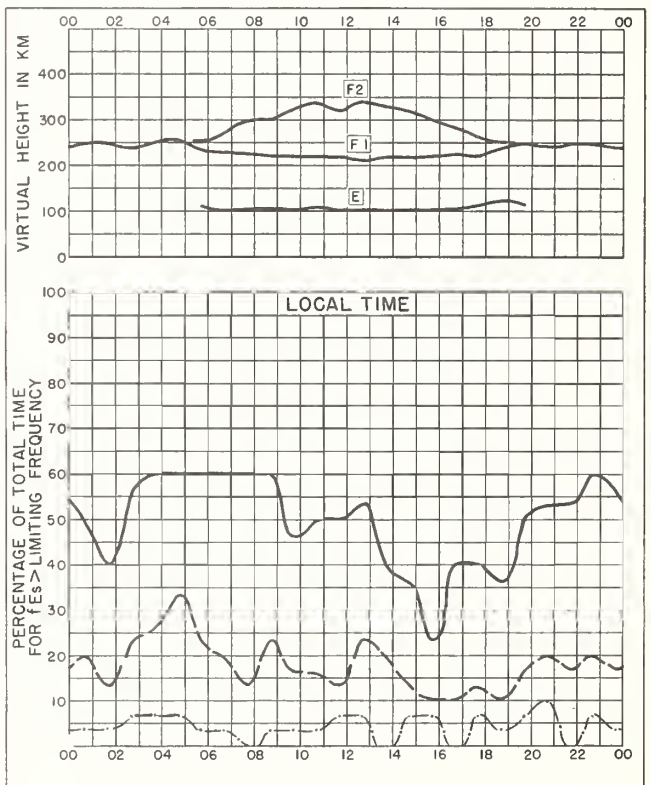


Fig. 32. RESOLUTE BAY, CANADA SEPTEMBER 1955

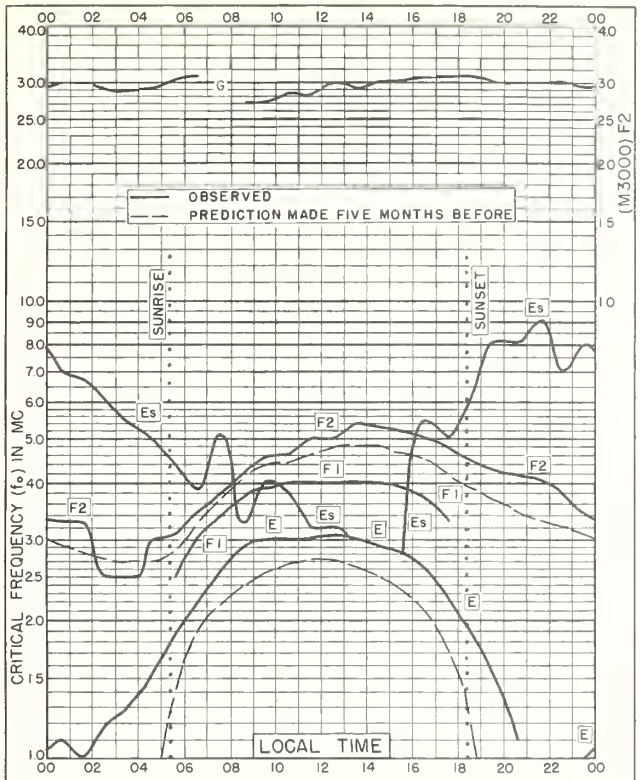


Fig. 33. BAKER LAKE, CANADA
64.3°N, 96.0° W SEPTEMBER 1955

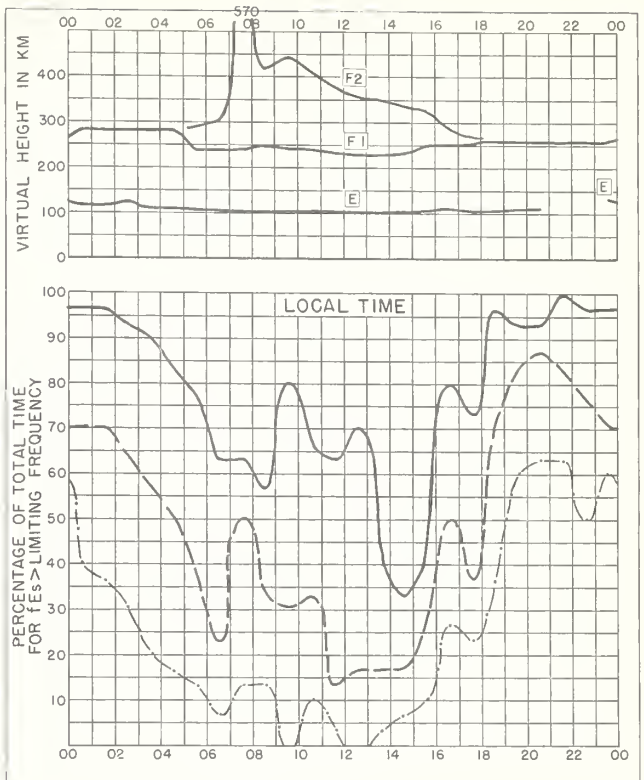


Fig. 34. BAKER LAKE, CANADA SEPTEMBER 1955

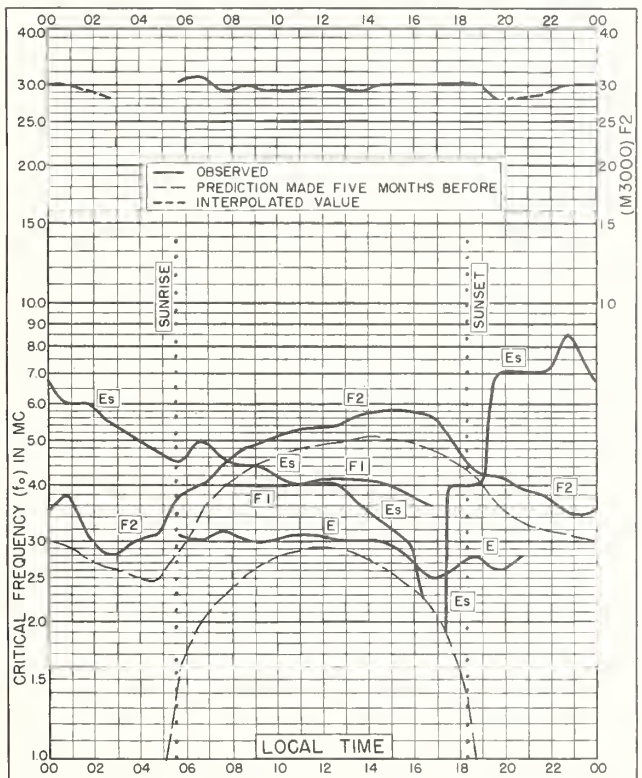


Fig. 35. CHURCHILL, CANADA
58.8°N, 94.2° W SEPTEMBER 1955

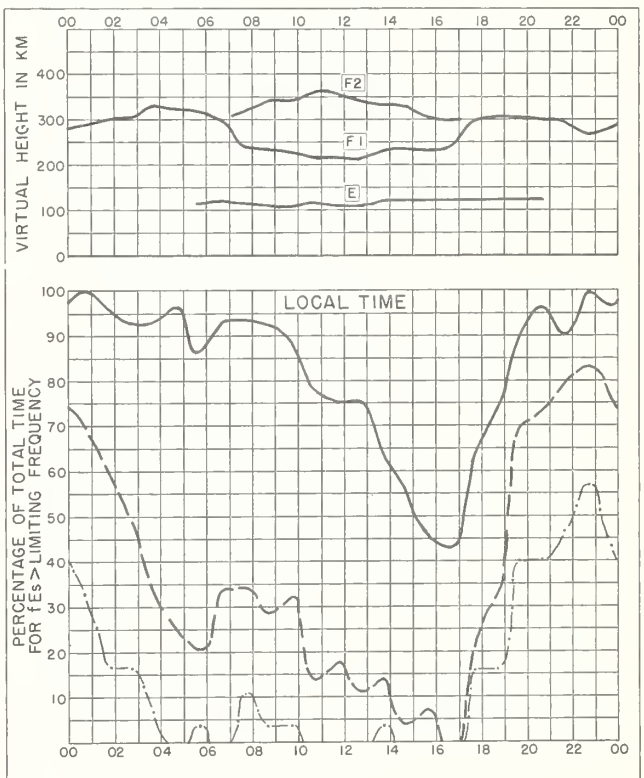


Fig. 36. CHURCHILL, CANADA SEPTEMBER 1955

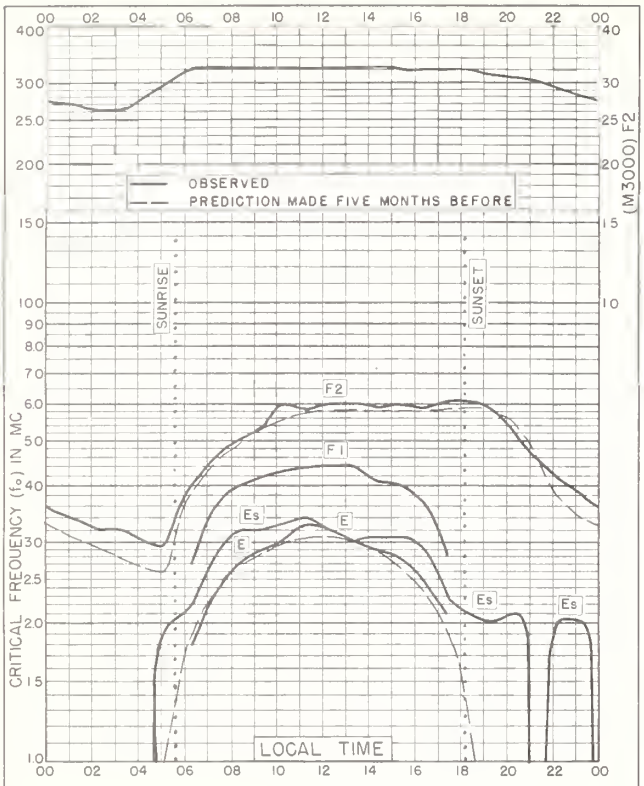


Fig. 37. De BILT, HOLLAND
52.1°N, 5.2°E SEPTEMBER 1955

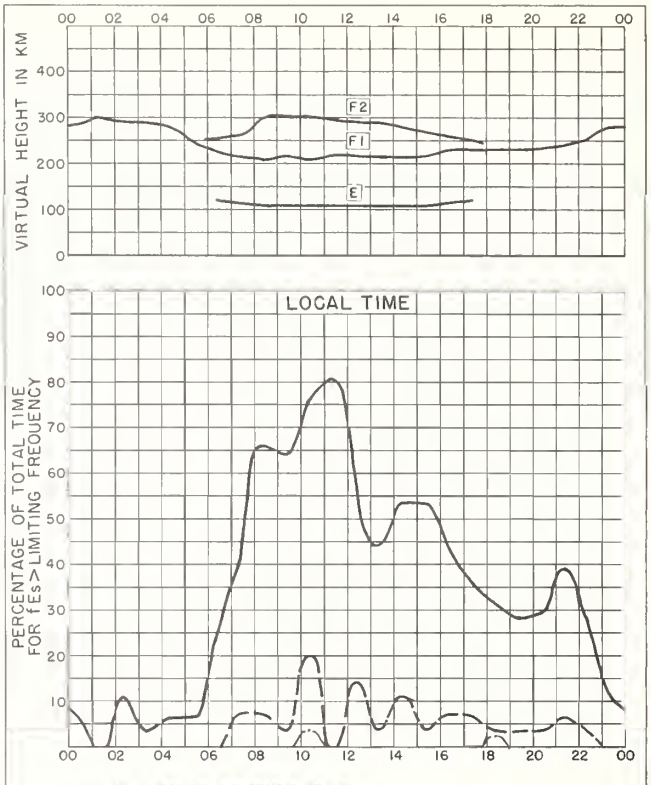


Fig. 38. De BILT, HOLLAND SEPTEMBER 1955

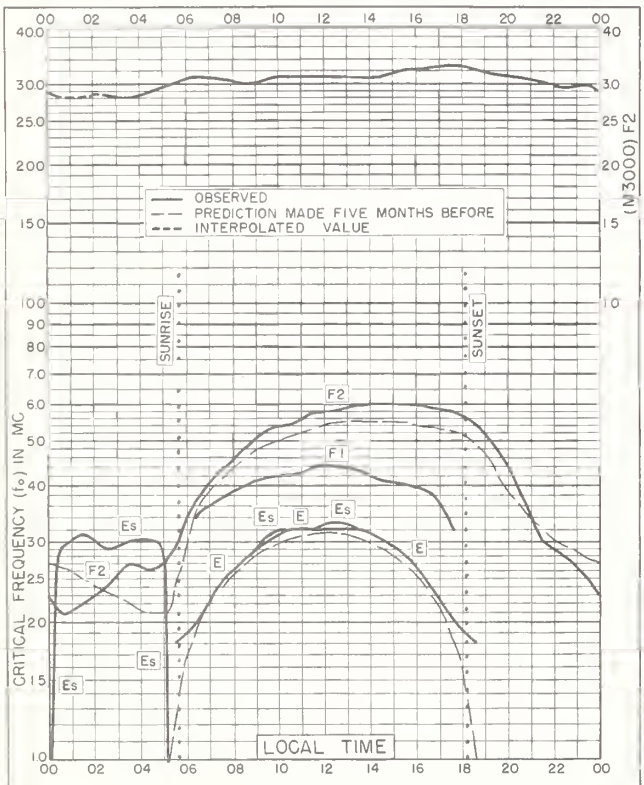


Fig. 39. WINNIPEG, CANADA
49.9°N, 97.4°W SEPTEMBER 1955

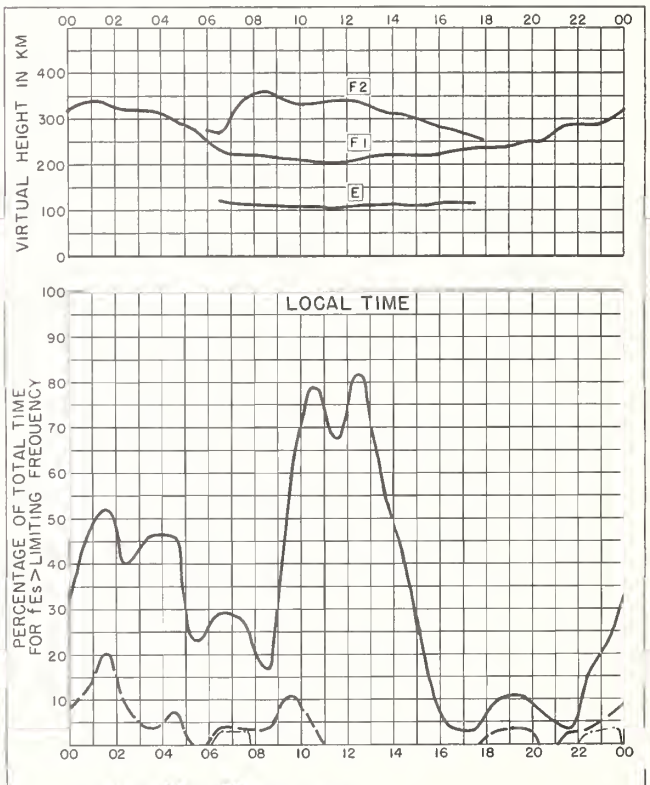


Fig. 40. WINNIPEG, CANADA SEPTEMBER 1955

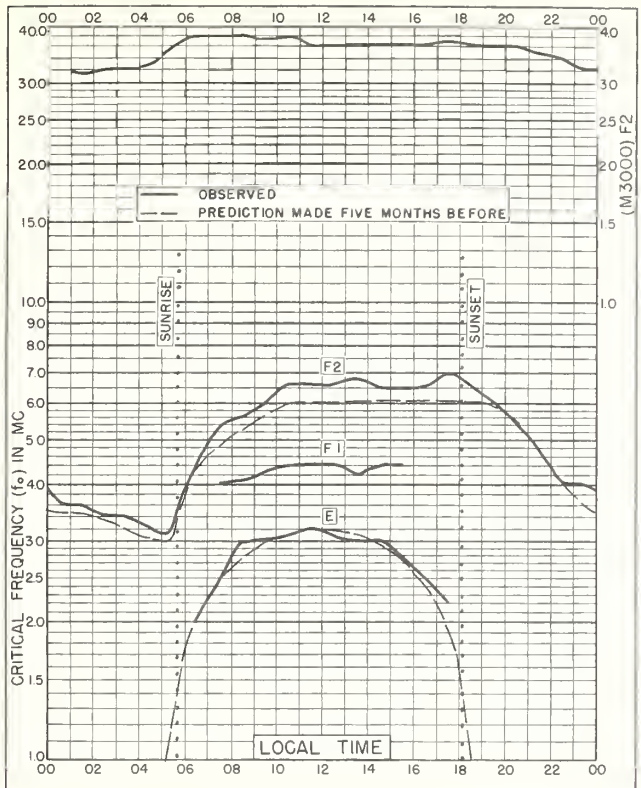
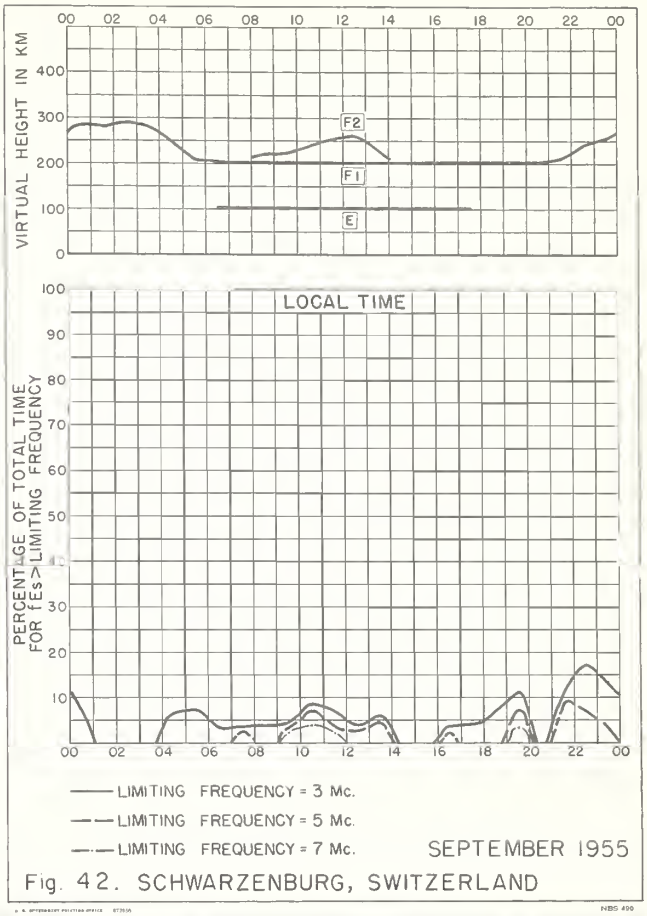


Fig. 41. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E SEPTEMBER 1955



SEPTEMBER 1955

Fig. 42. SCHWARZENBURG, SWITZERLAND

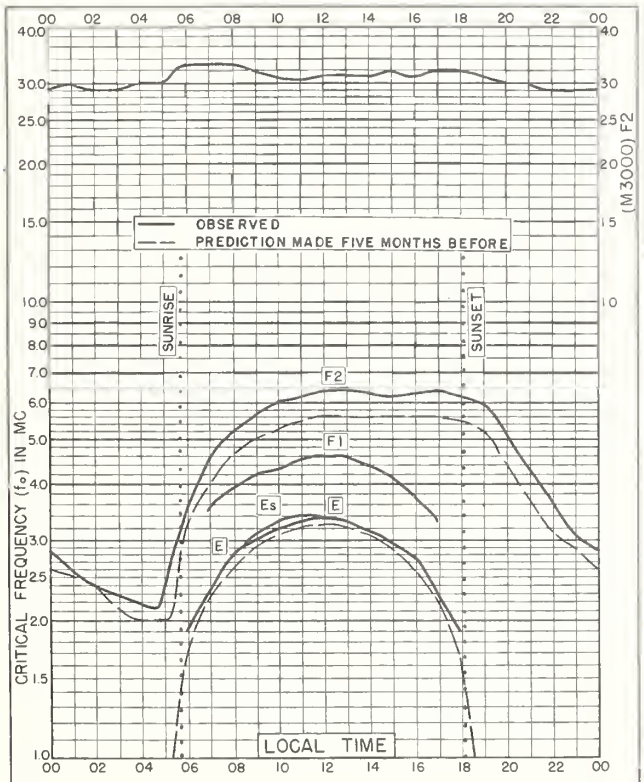


Fig. 43. OTTAWA, CANADA
45.4°N, 75.9°W SEPTEMBER 1955

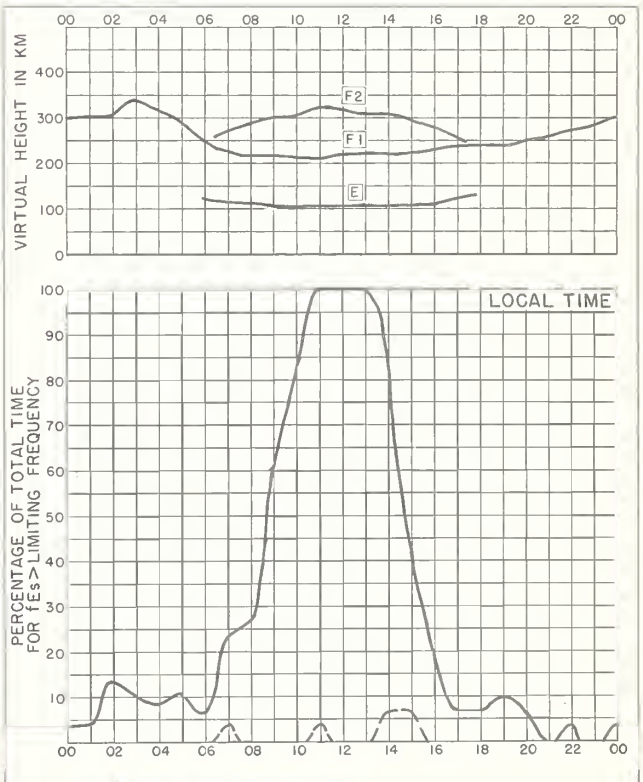


Fig. 44. OTTAWA, CANADA SEPTEMBER 1955

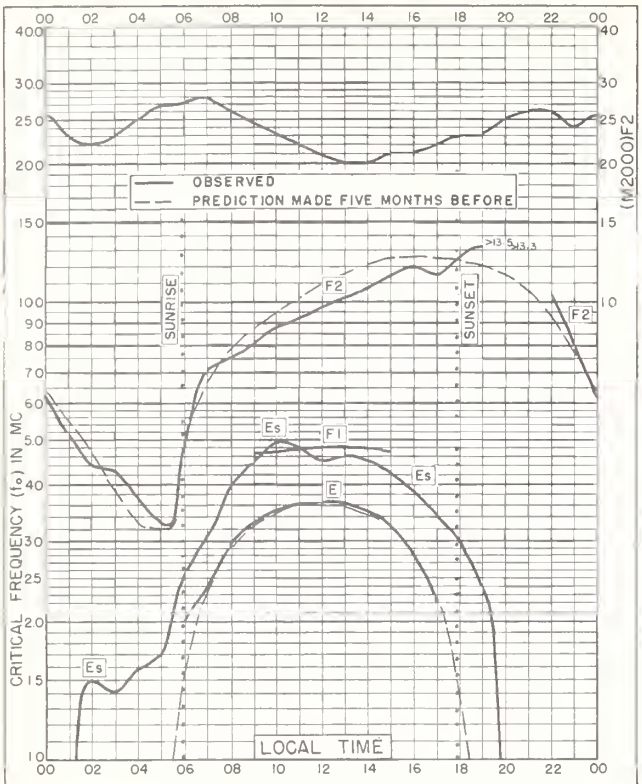
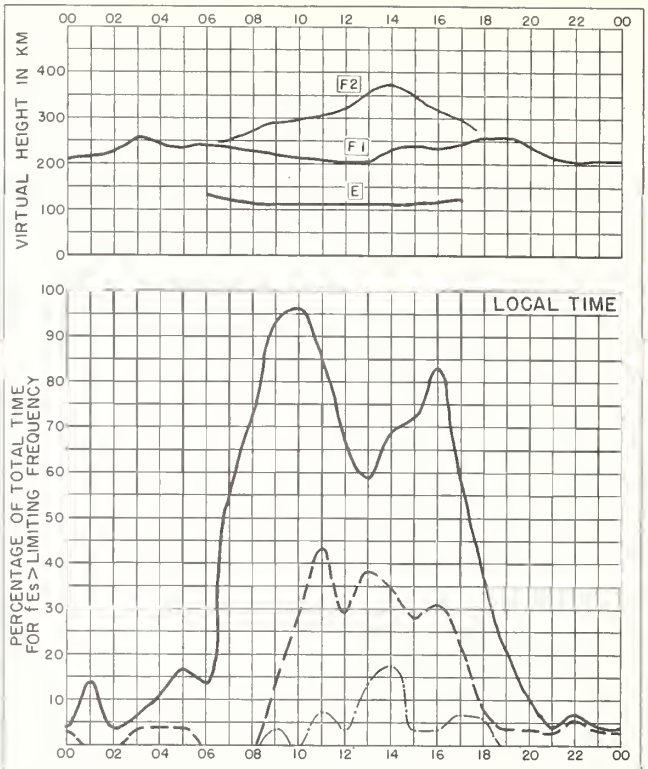


Fig. 45. LEOPOLDVILLE, BELGIAN CONGO
4.4°S, 15.2°E SEPTEMBER 1955



SEPTEMBER 1955

Fig. 46. LEOPOLDVILLE, BELGIAN CONGO

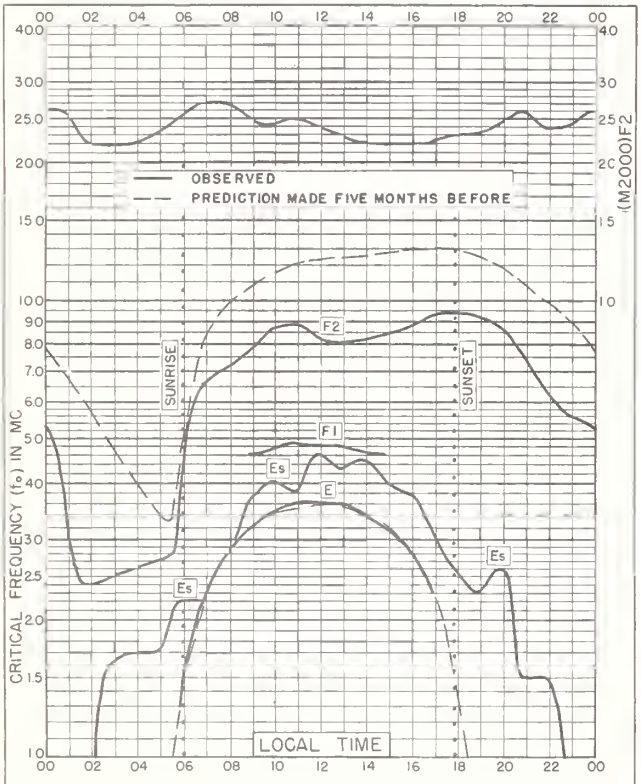
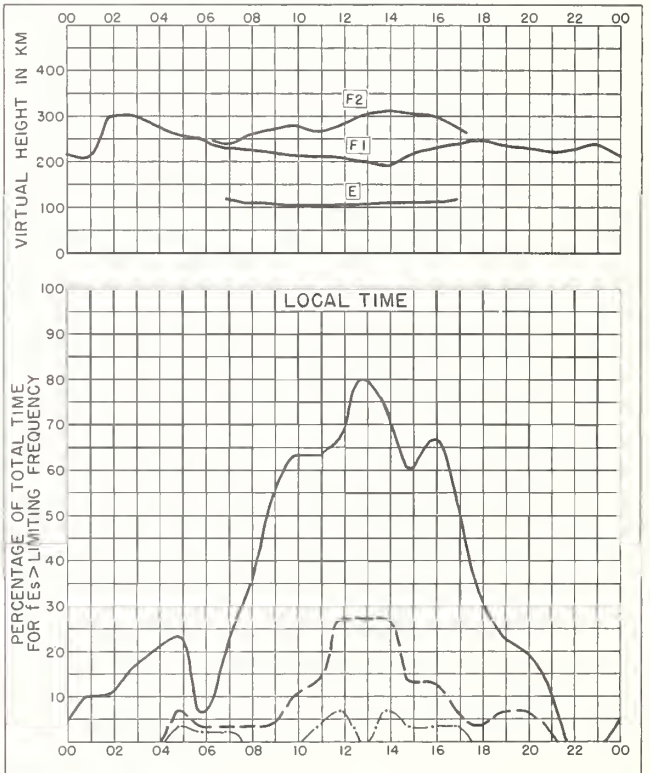


Fig. 47. ELISABETHVILLE, BELGIAN CONGO
11.6°S, 27.5°E SEPTEMBER 1955



SEPTEMBER 1955

Fig. 48. ELISABETHVILLE, BELGIAN CONGO

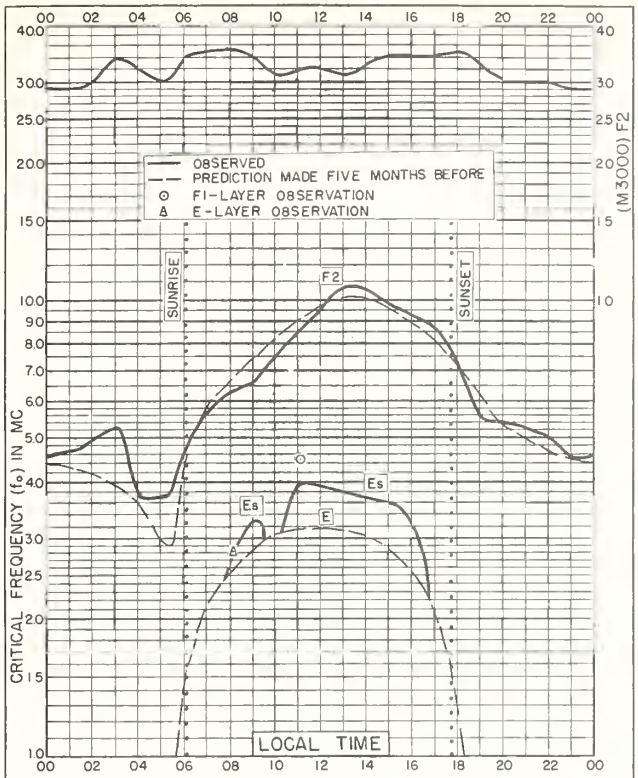


Fig. 49. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W SEPTEMBER 1955

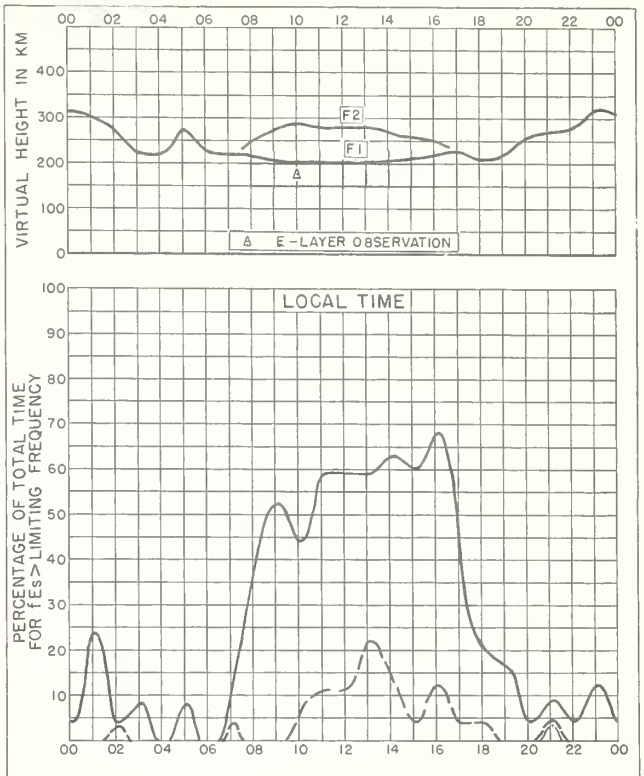


Fig. 50. BUENOS AIRES, ARGENTINA SEPTEMBER 1955

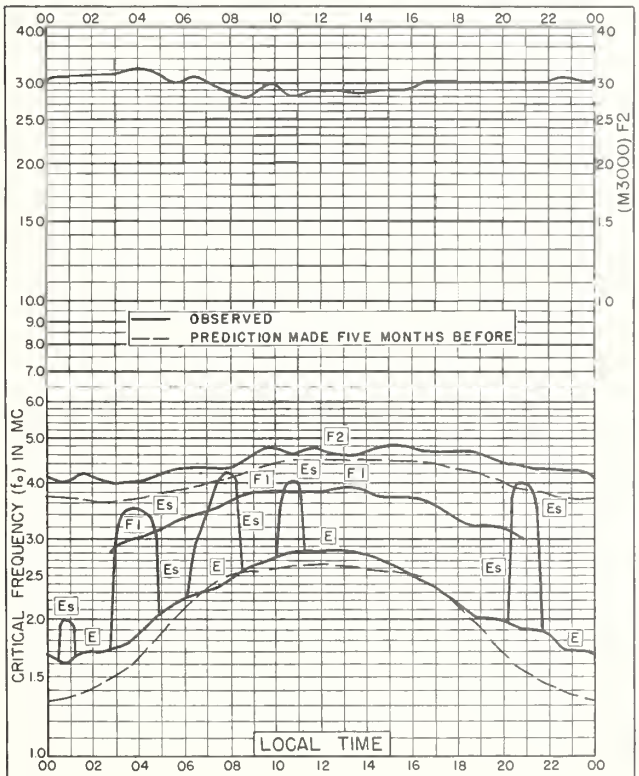


Fig. 51. RESOLUTE BAY, CANADA
74.7°N, 94.9°W AUGUST 1955

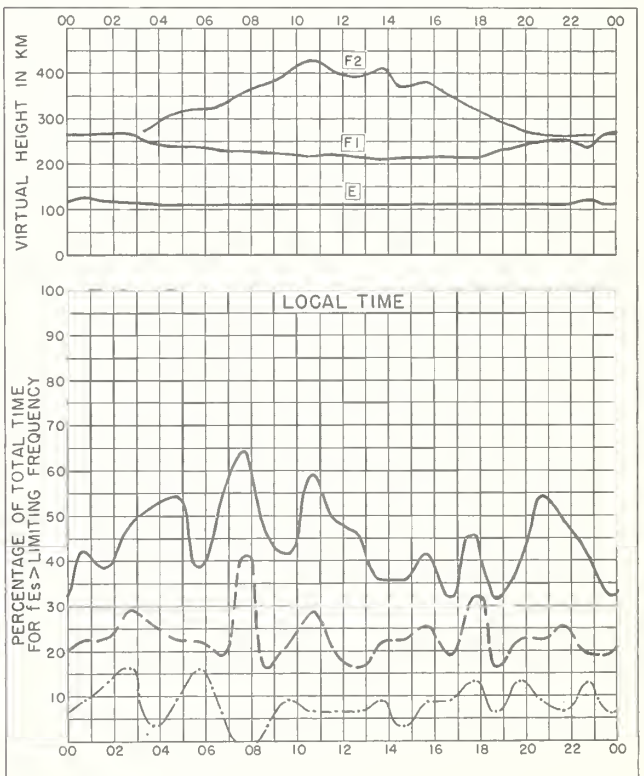


Fig. 52. RESOLUTE BAY, CANADA AUGUST 1955

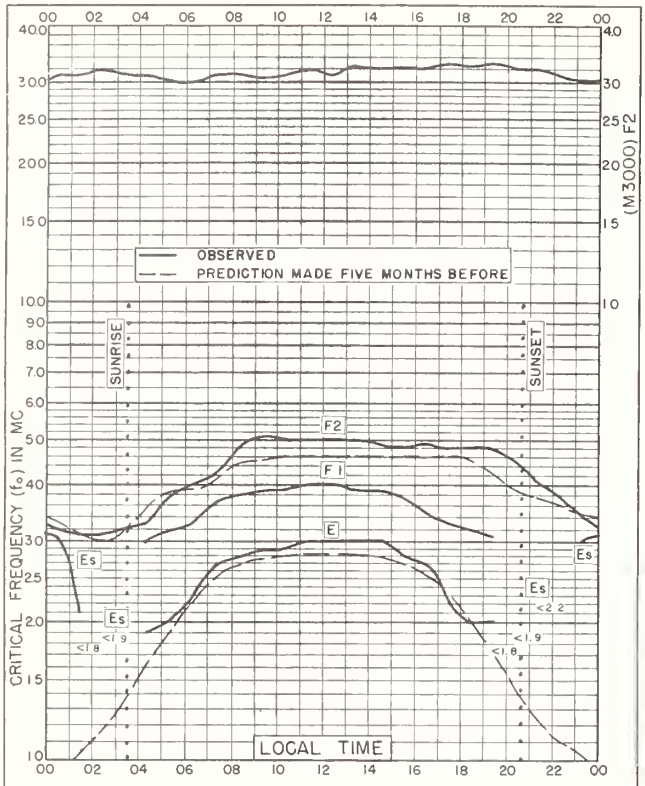


Fig. 53. KIRUNA, SWEDEN
67.8°N, 20.3°E AUGUST 1955

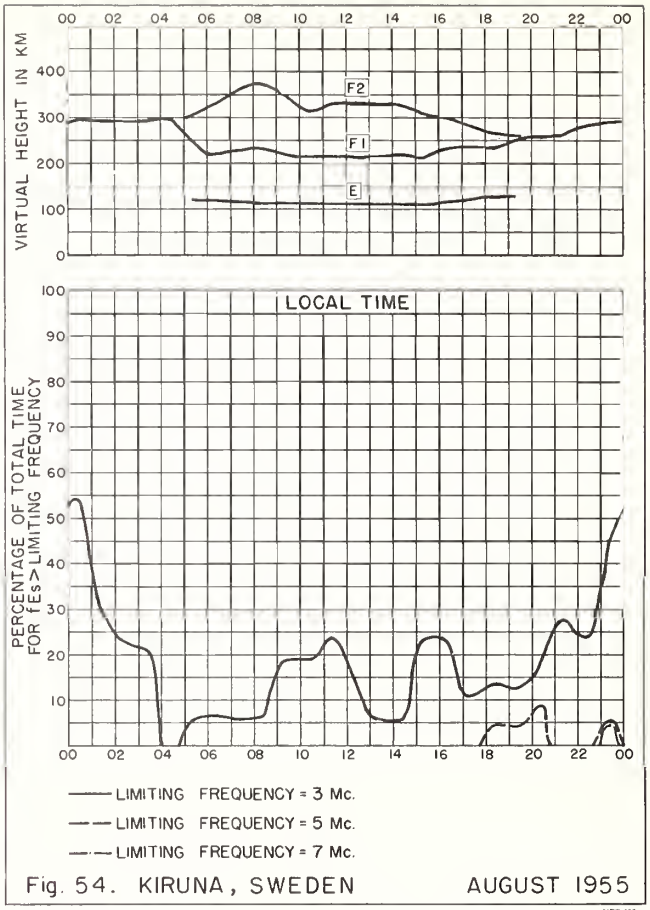


Fig. 54. KIRUNA, SWEDEN AUGUST 1955

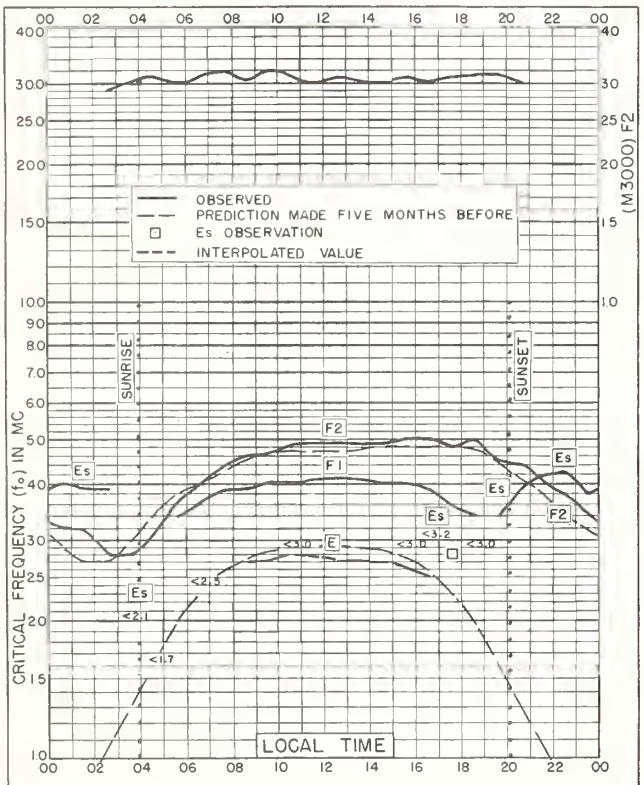


Fig. 55. REYKJAVIK, ICELAND
64.1°N, 21.8°W AUGUST 1955

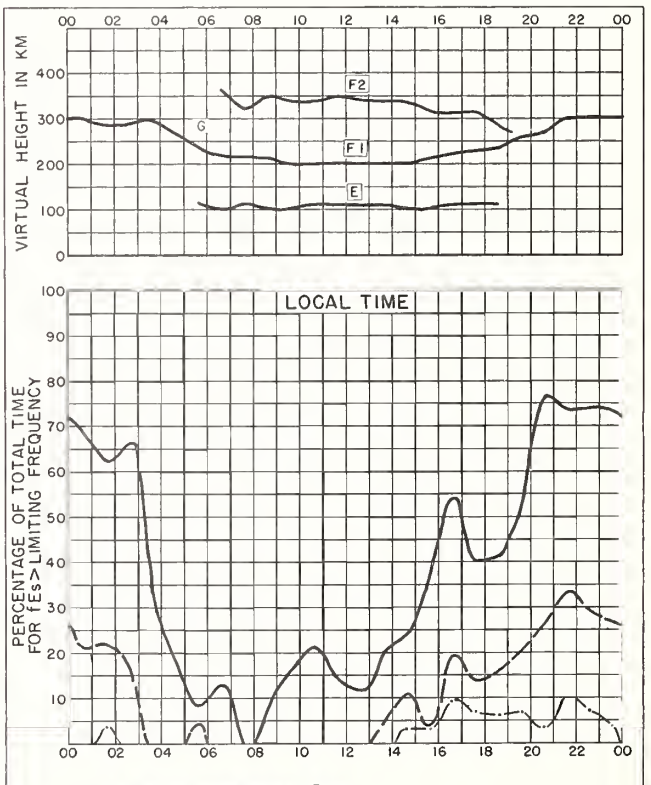


Fig. 56. REYKJAVIK, ICELAND AUGUST 1955

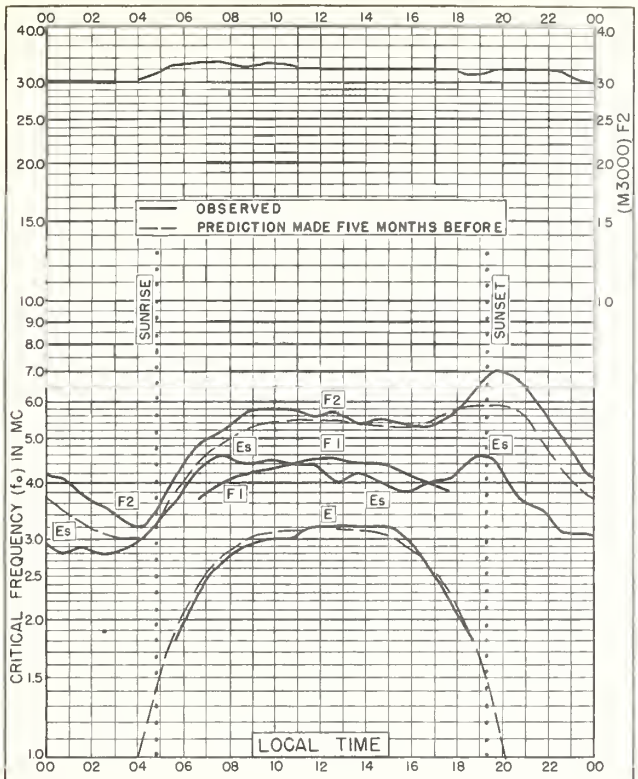


Fig. 57. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E AUGUST 1955

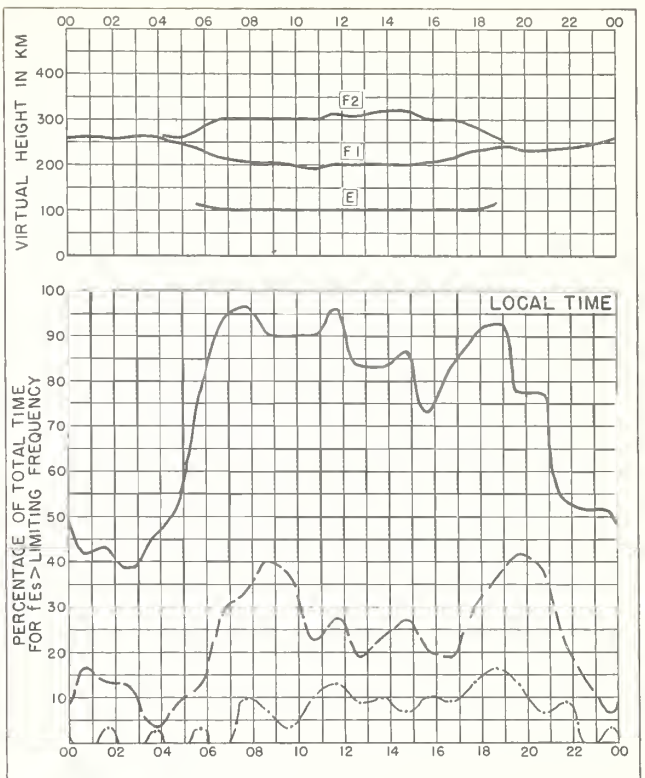


Fig. 58. LINDAU/HARZ, GERMANY AUGUST 1955

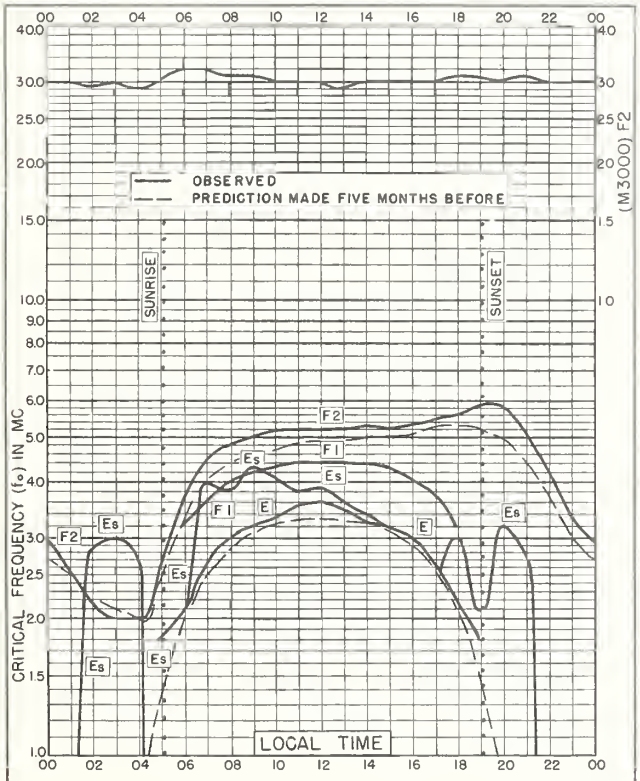


Fig. 59. OTTAWA, CANADA
45.4°N, 75.9°W AUGUST 1955

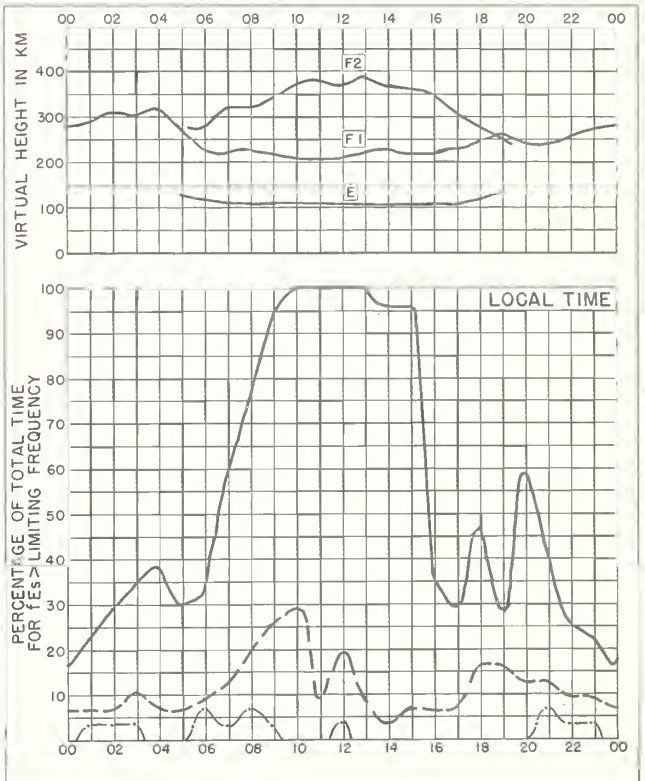


Fig. 60. OTTAWA, CANADA AUGUST 1955

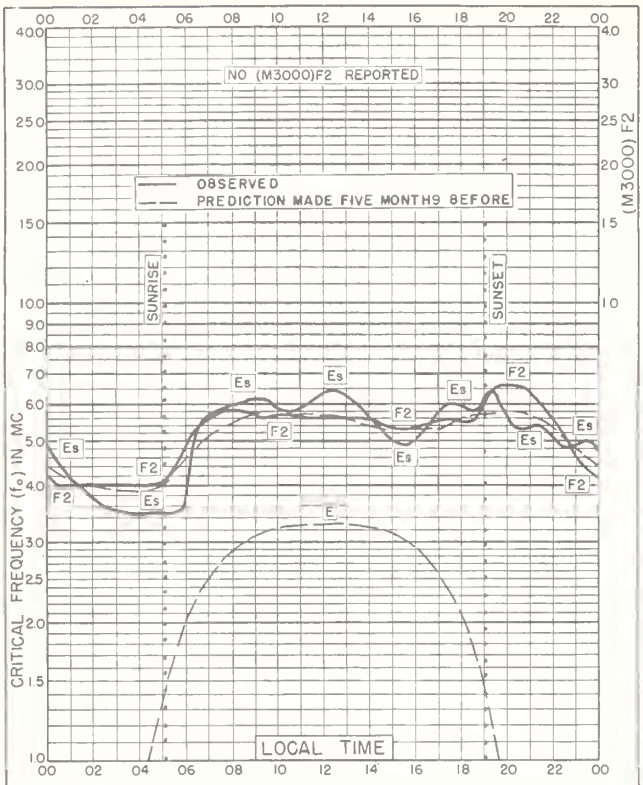


Fig. 61. WAKKANAI, JAPAN
45.4°N, 141.7°E AUGUST 1955

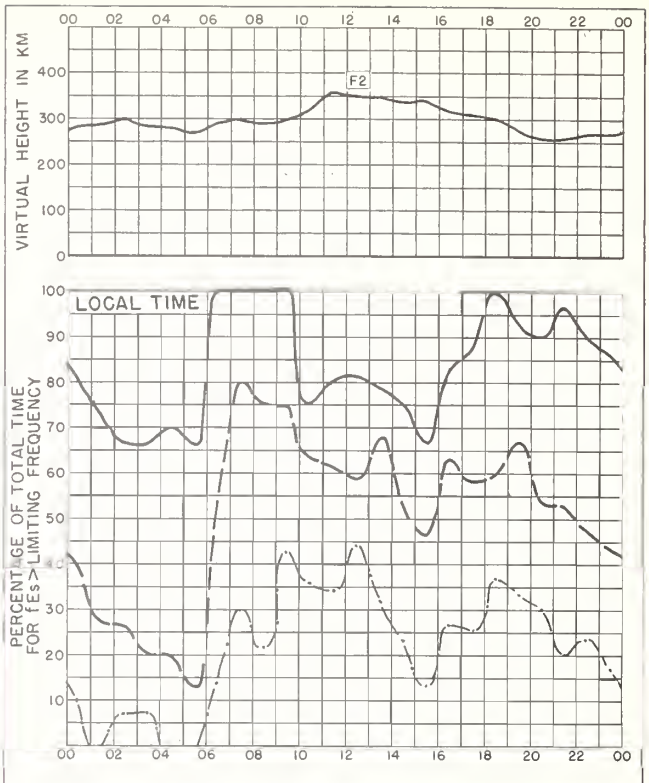


Fig. 62. WAKKANAI, JAPAN AUGUST 1955

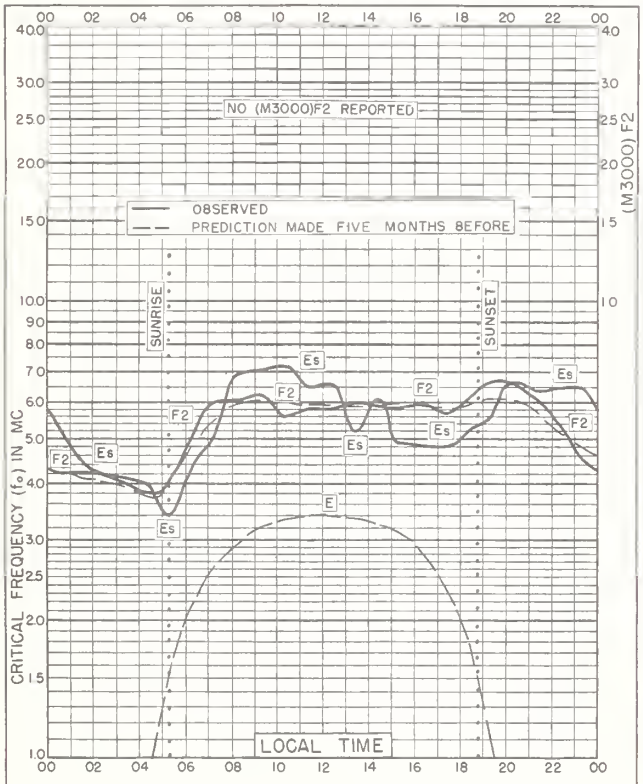


Fig. 63. AKITA, JAPAN
39.7°N, 140.1°E AUGUST 1955

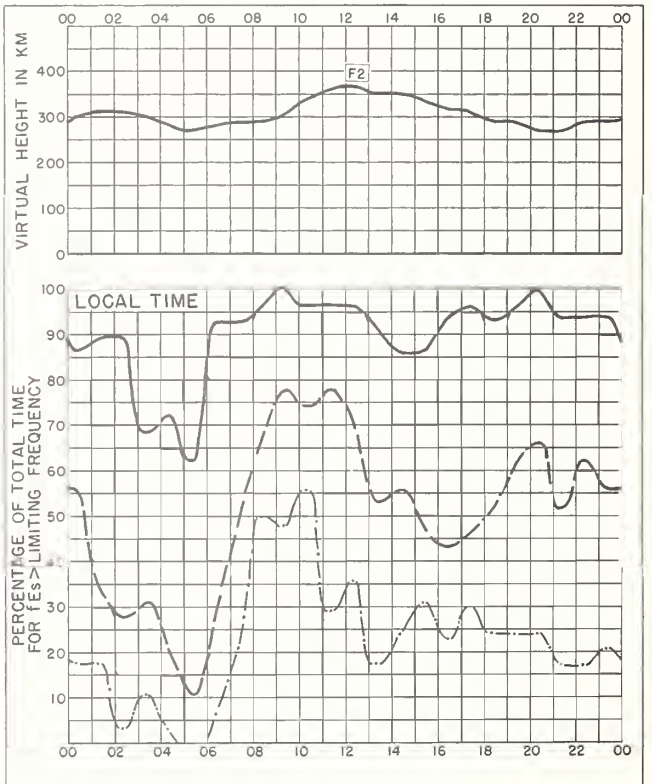


Fig. 64. AKITA, JAPAN AUGUST 1955

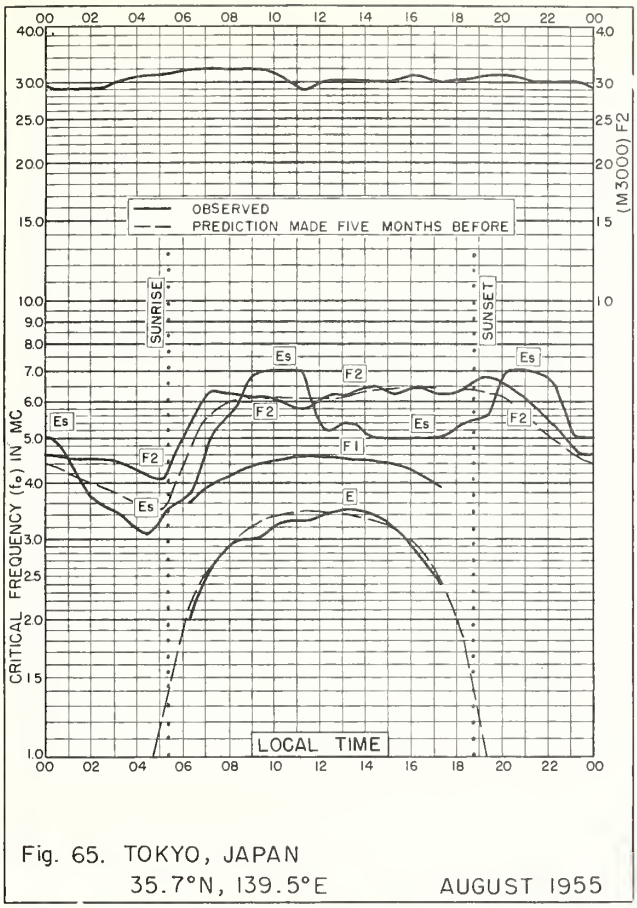


Fig. 65. TOKYO, JAPAN
35.7°N, 139.5°E AUGUST 1955

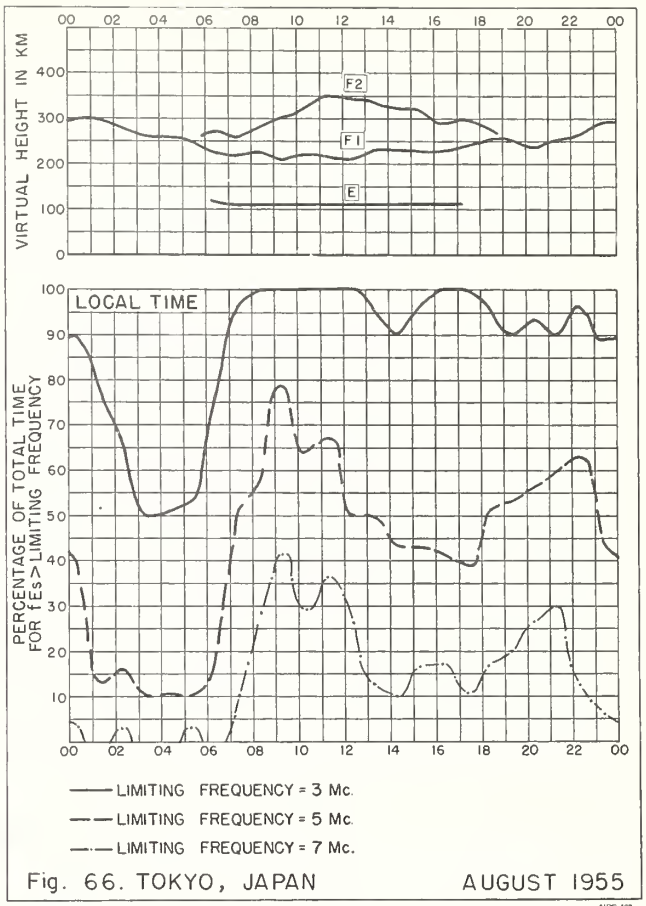


Fig. 66. TOKYO, JAPAN AUGUST 1955

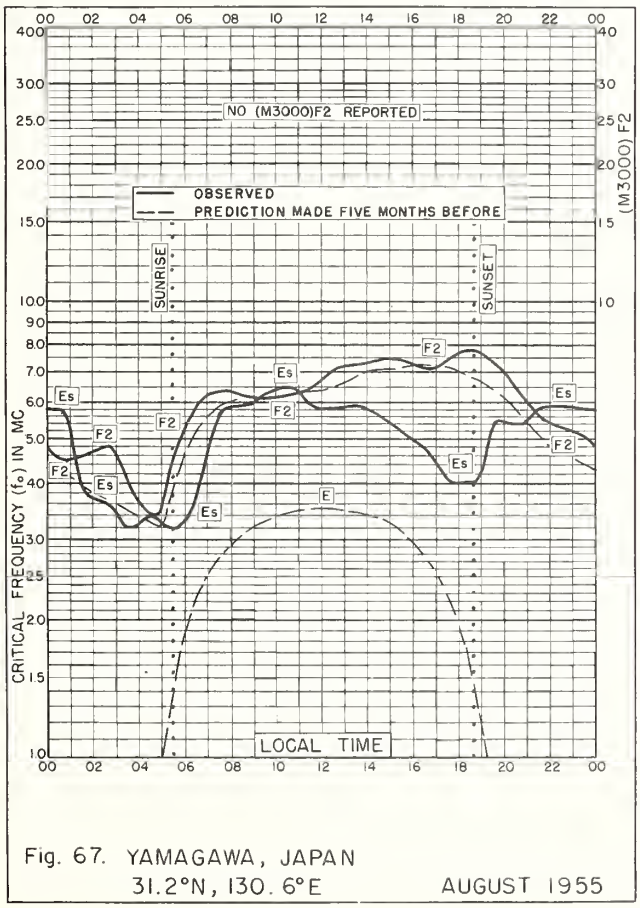


Fig. 67. YAMAGAWA, JAPAN
31.2°N, 130.6°E AUGUST 1955

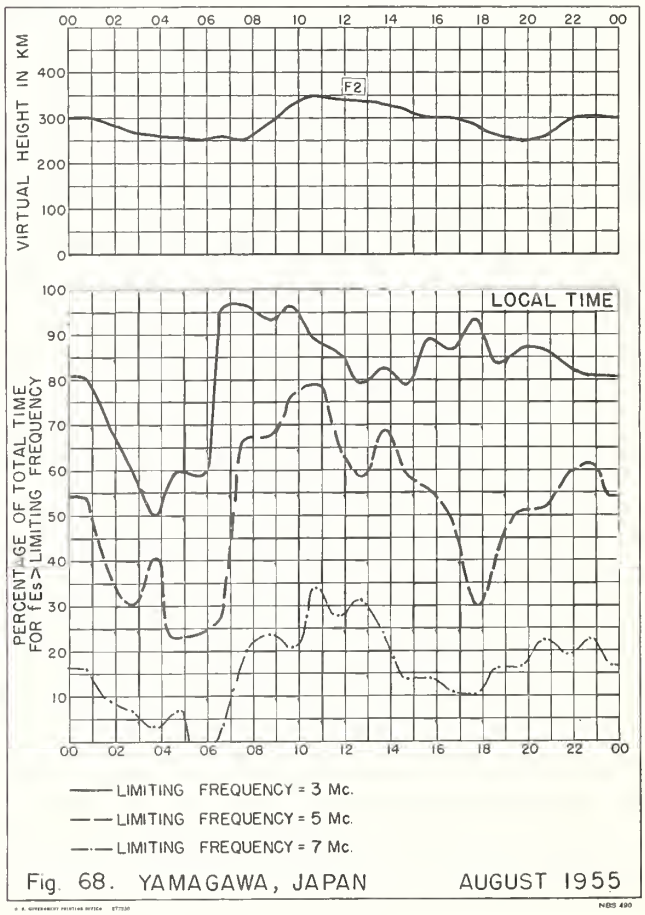


Fig. 68. YAMAGAWA, JAPAN AUGUST 1955

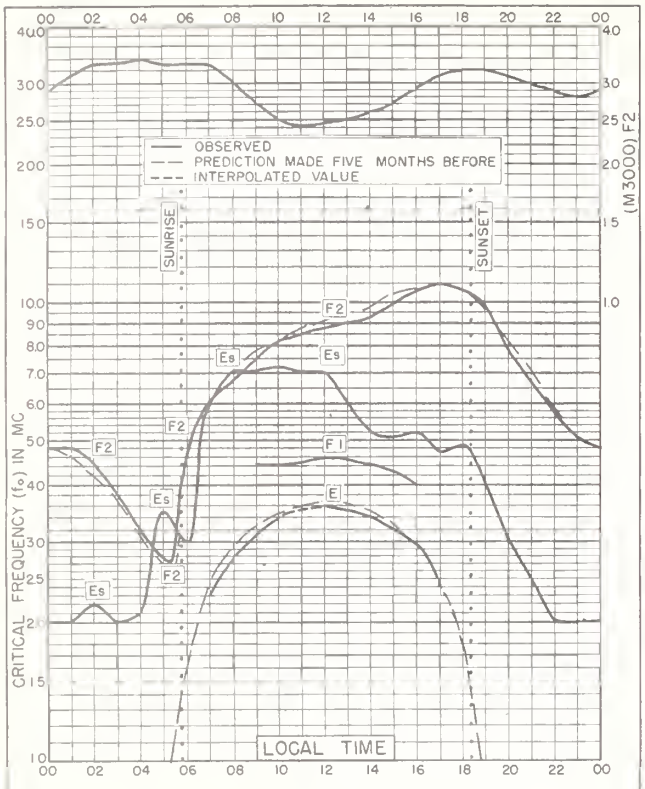


Fig. 69. BAGUIO, P.I.
16.4°N, 120.6°E AUGUST 1955

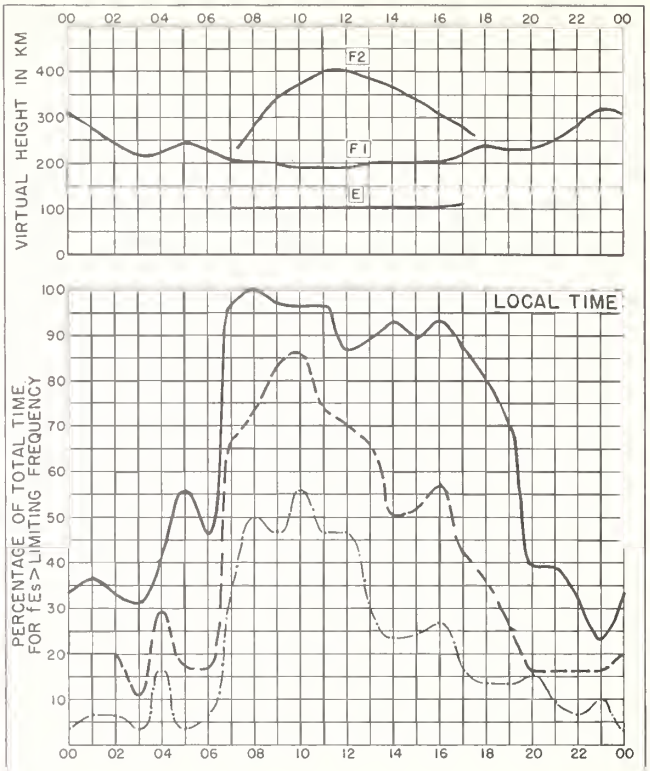


Fig. 70. BAGUIO, P.I. AUGUST 1955

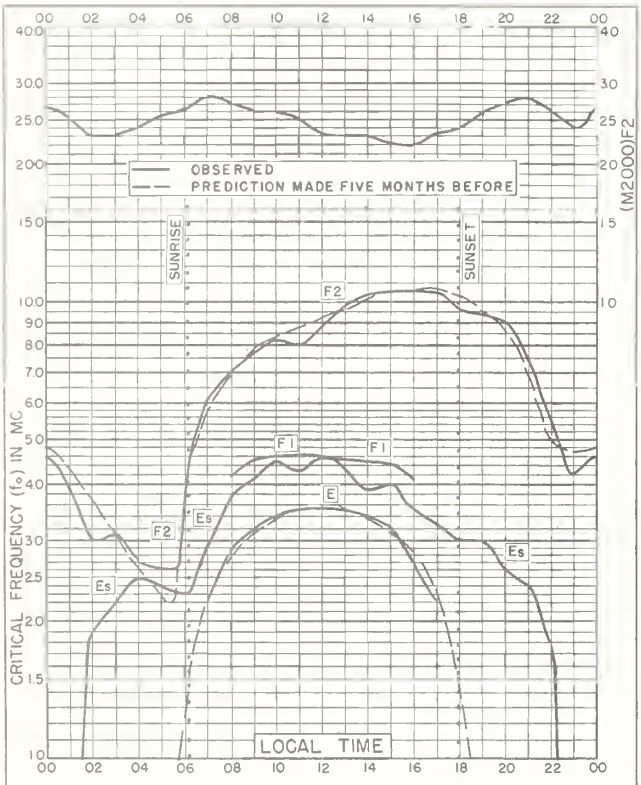


Fig. 71. LEOPOLDVILLE, BELGIAN CONGO
4.4°S, 15.2°E AUGUST 1955

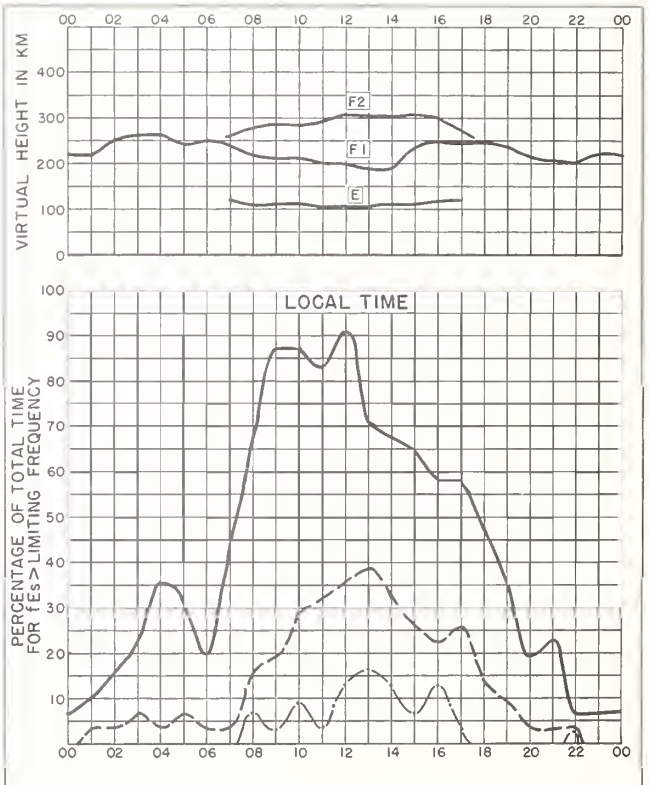


Fig. 72. LEOPOLDVILLE, BELGIAN CONGO AUGUST 1955

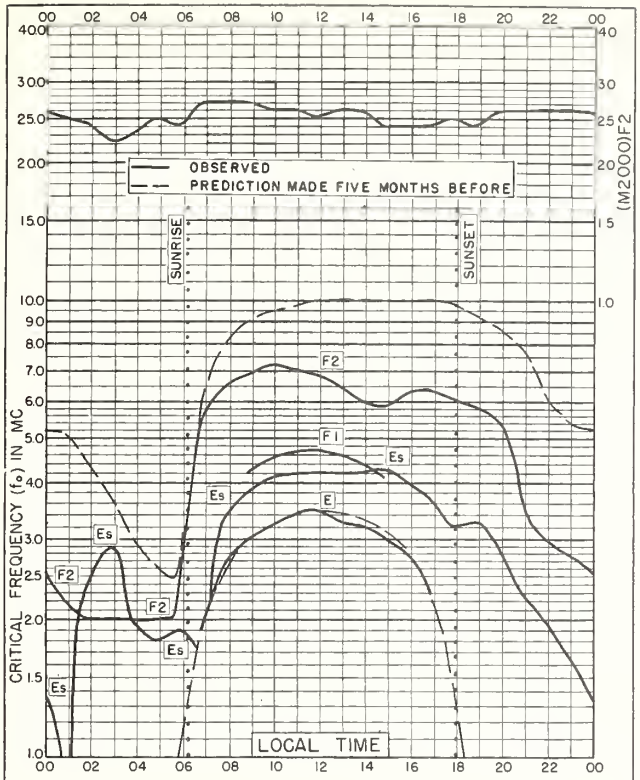
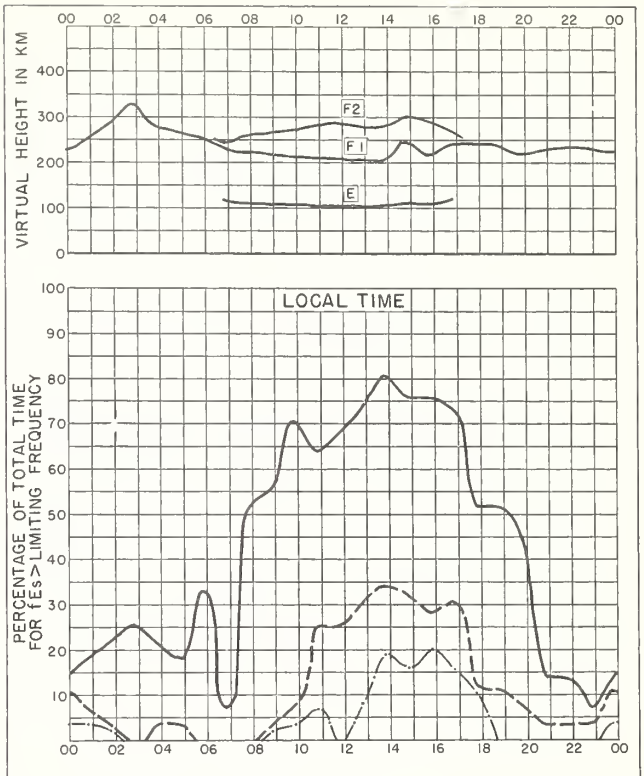


Fig. 73. ELISABETHVILLE, BELGIAN CONGO
11.6°S, 27.5°E AUGUST 1955



AUGUST 1955

Fig. 74. ELISABETHVILLE, BELGIAN CONGO

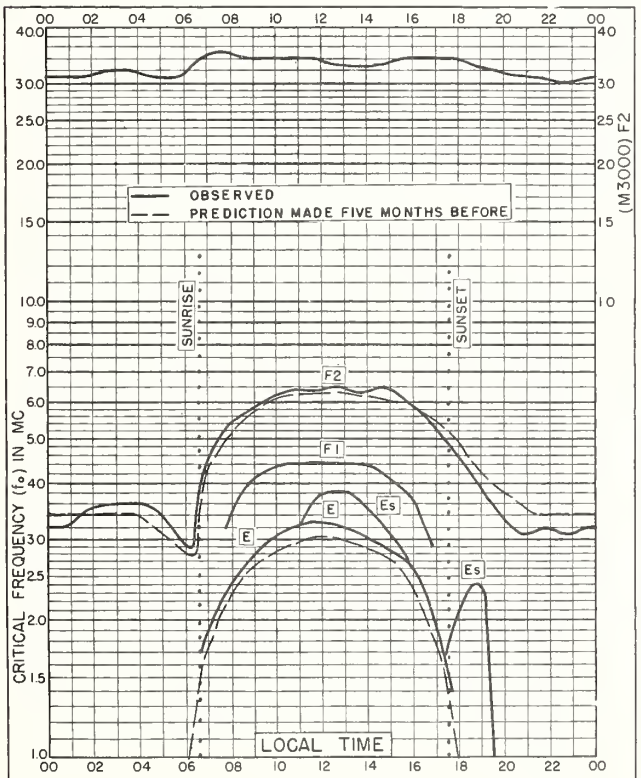
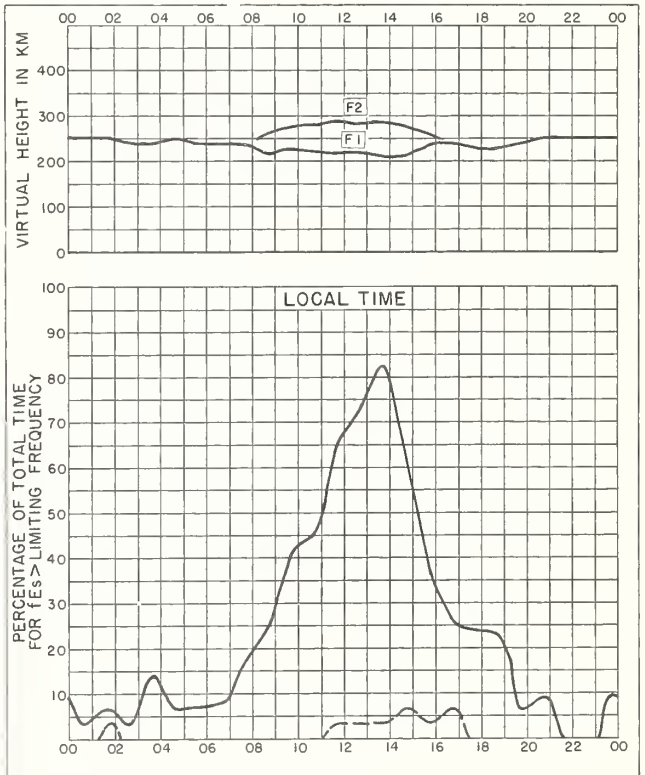


Fig. 75. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E AUGUST 1955



AUGUST 1955

Fig. 76. WATHEROO, W. AUSTRALIA

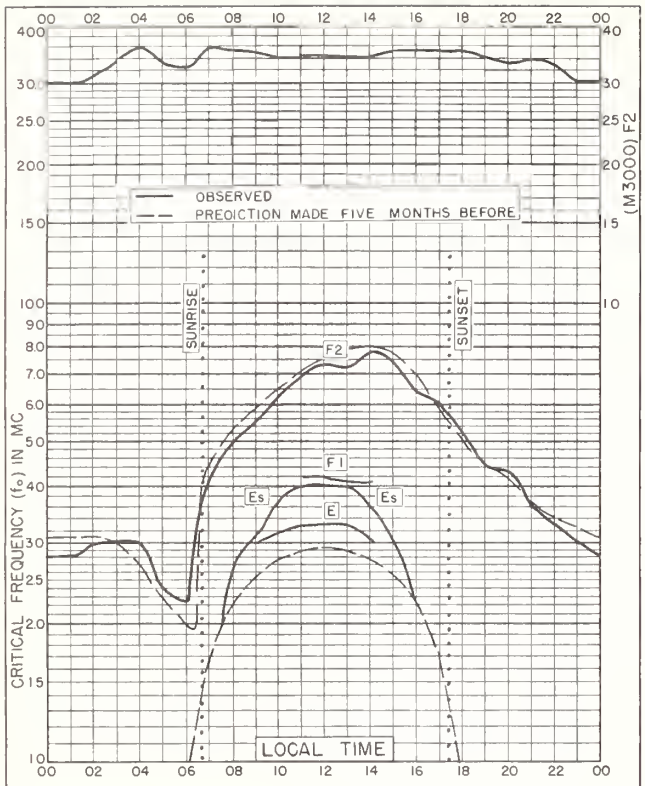
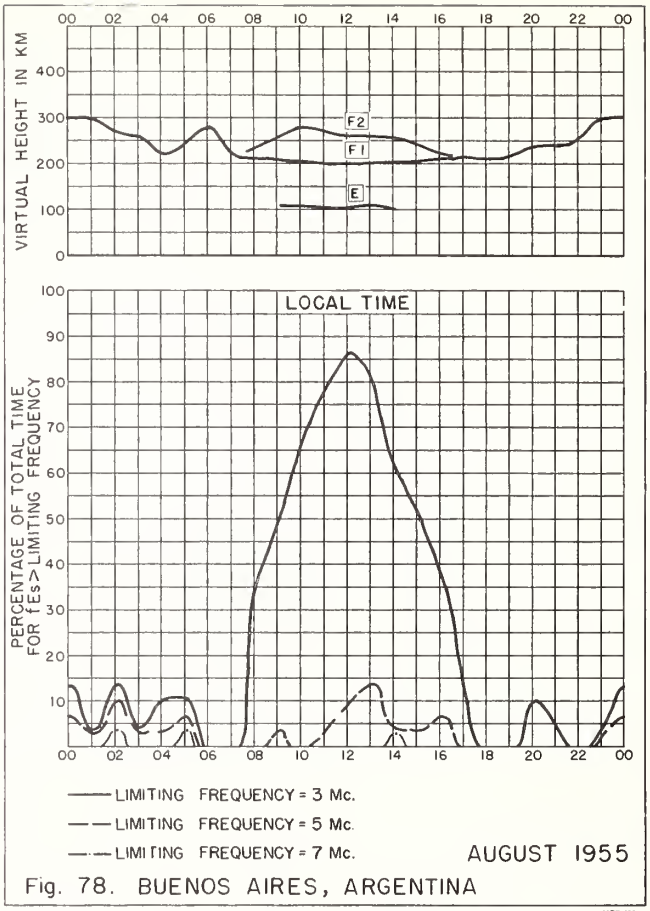


Fig. 77. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W AUGUST 1955



AUGUST 1955

Fig. 78. BUENOS AIRES, ARGENTINA

NBS 490

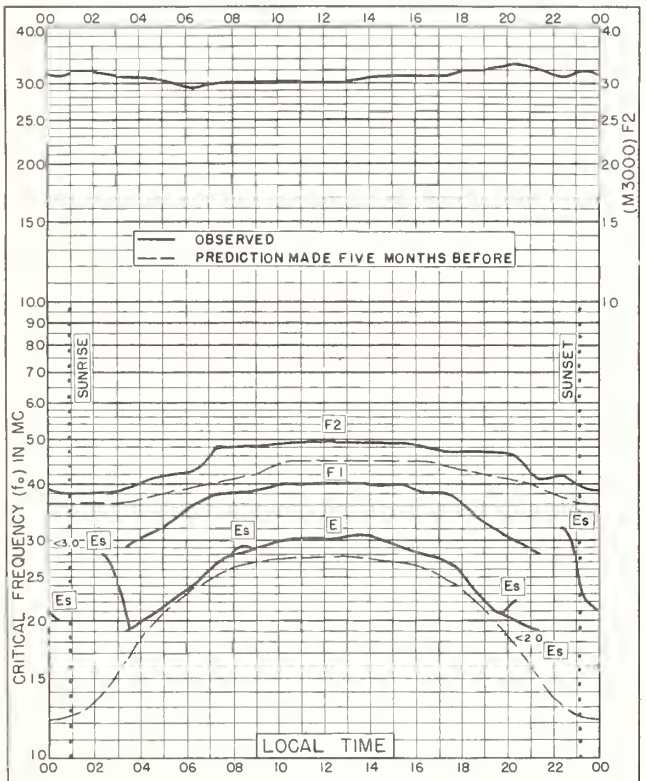


Fig. 79. KIRUNA, SWEDEN
67.8°N, 20.3°E JULY 1955

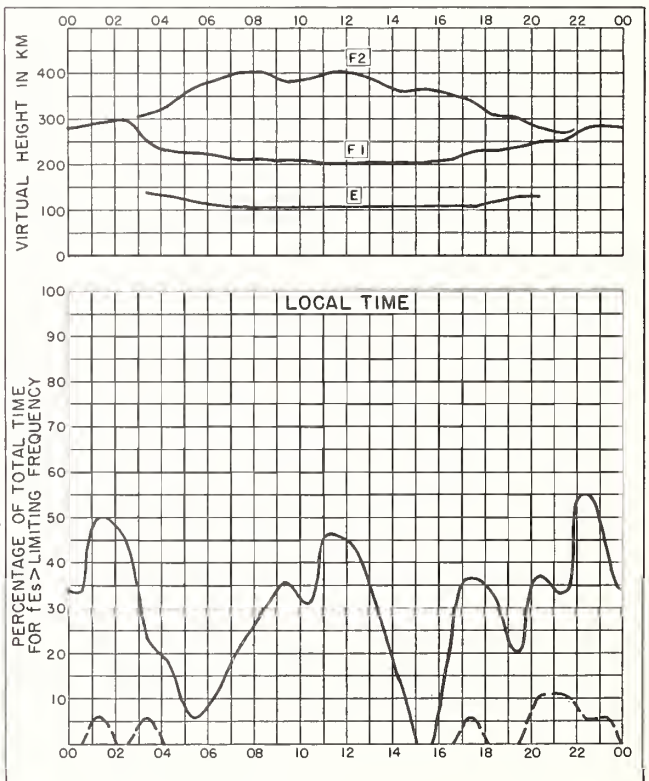


Fig. 80. KIRUNA, SWEDEN JULY 1955

NBS 490

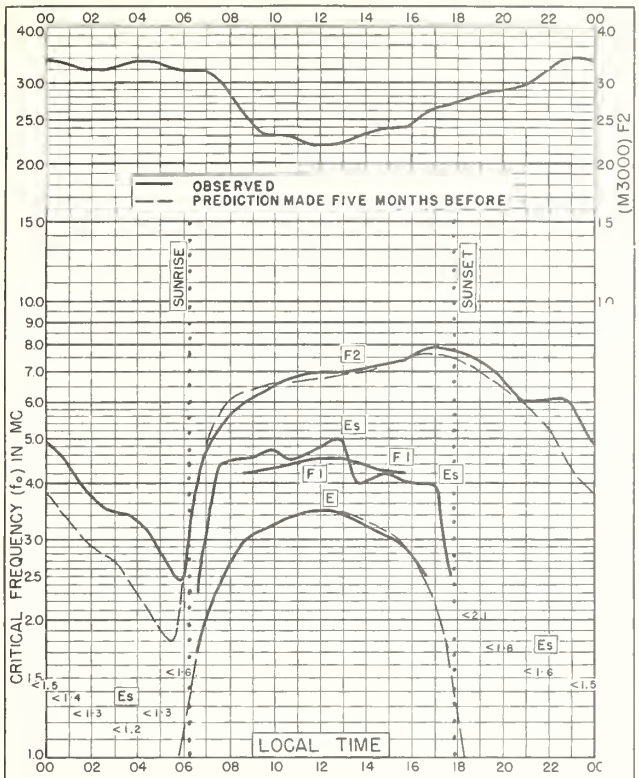


Fig. 81. TALARA, PERU
4.6° S, 81.3° W JULY 1955

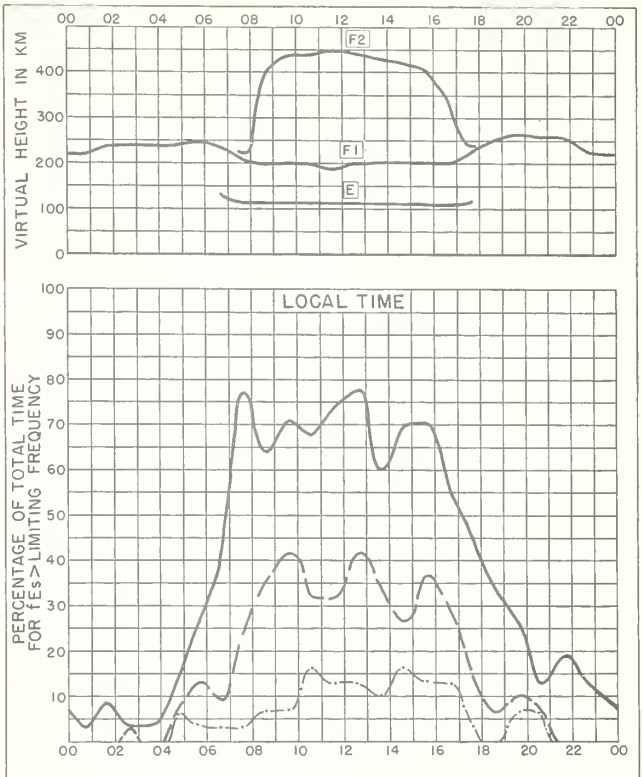


Fig. 82. TALARA, PERU JULY 1955

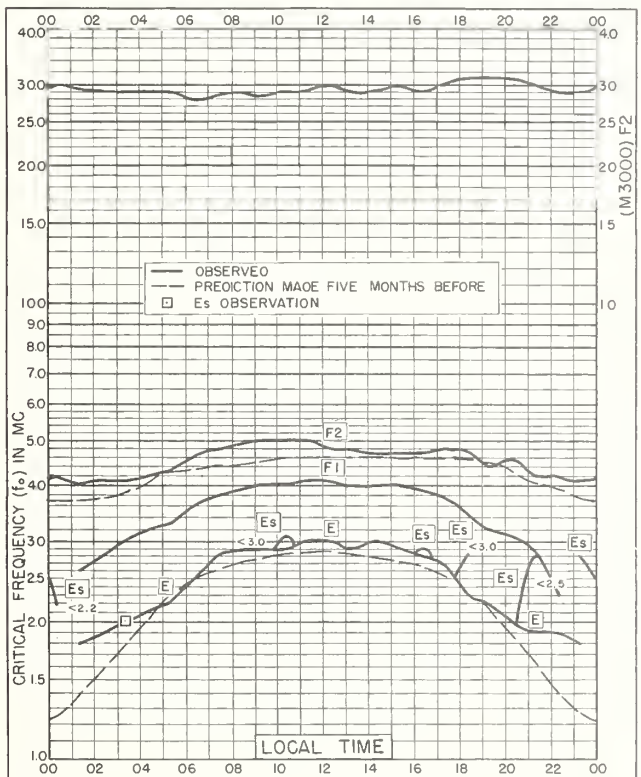


Fig. 83. KIRUNA, SWEDEN
67.8° N, 20.3° E JUNE 1955

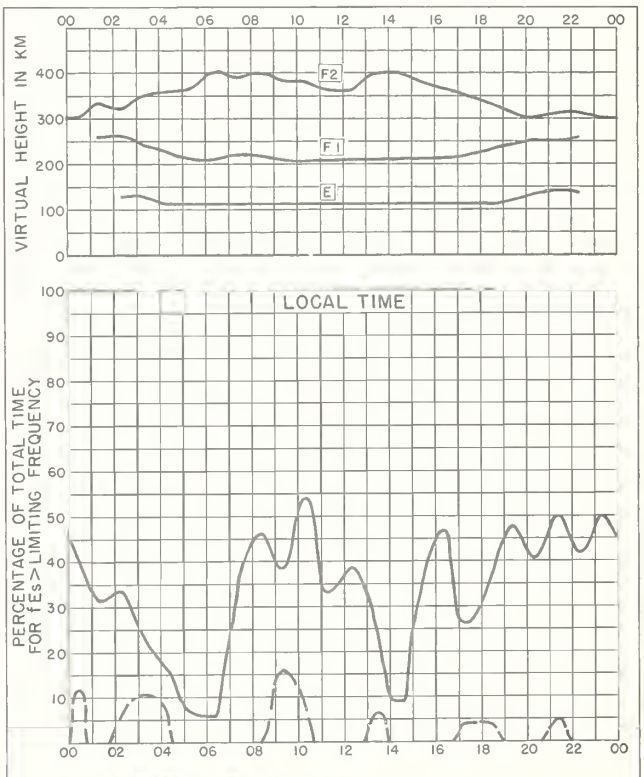


Fig. 84. KIRUNA, SWEDEN JUNE 1955

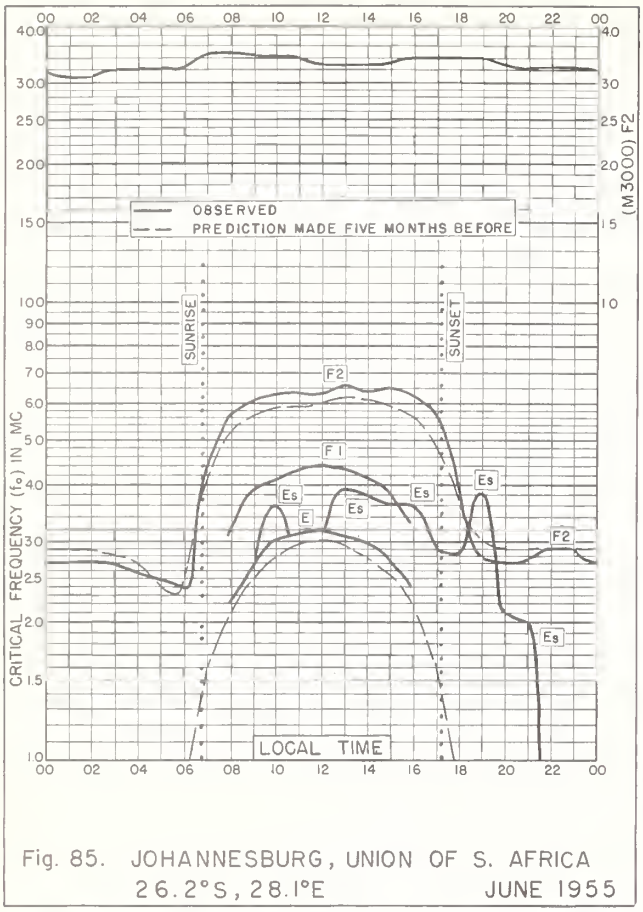
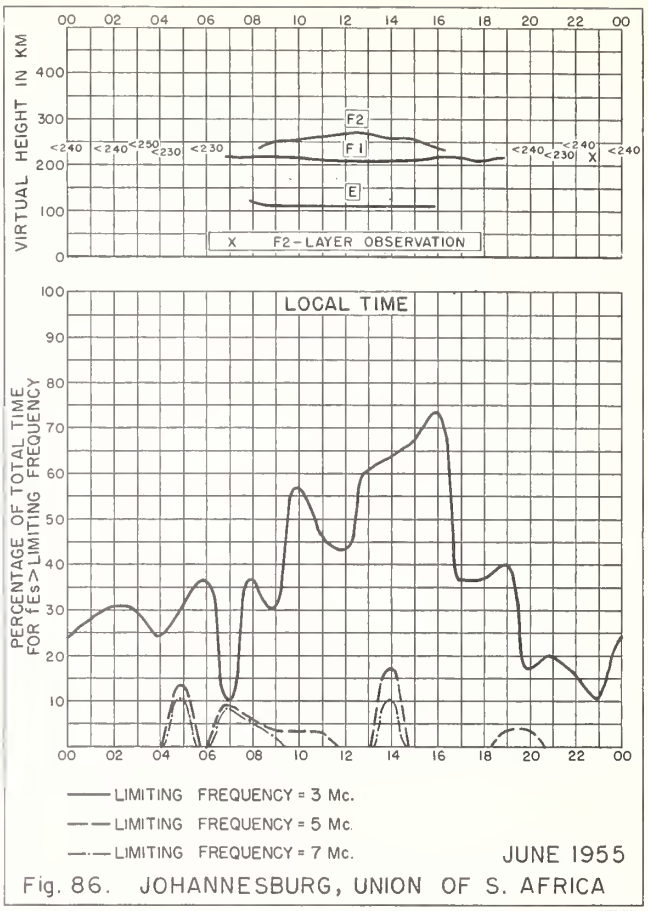


Fig. 85. JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.1°E JUNE 1955



JUNE 1955

Fig. 86. JOHANNESBURG, UNION OF S. AFRICA

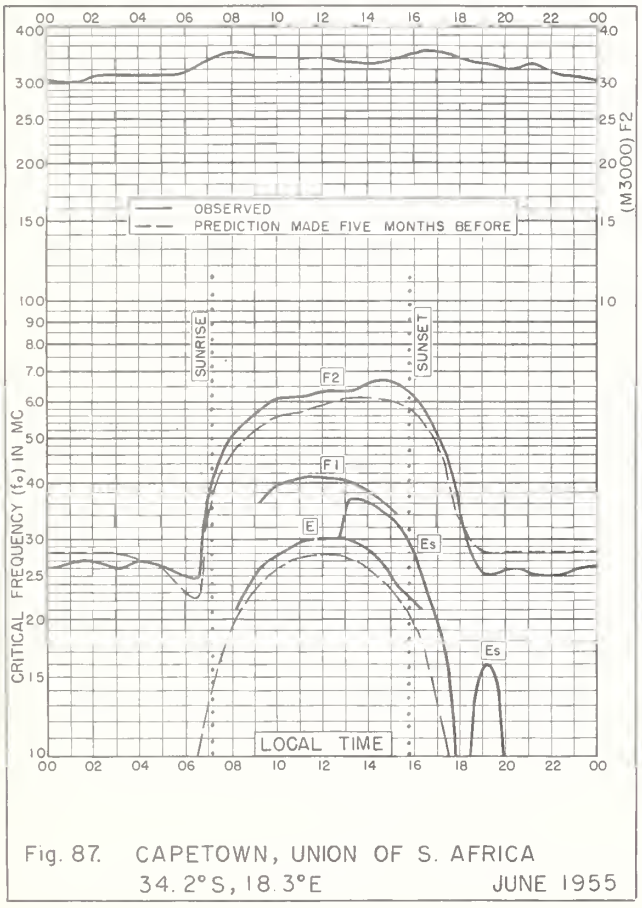
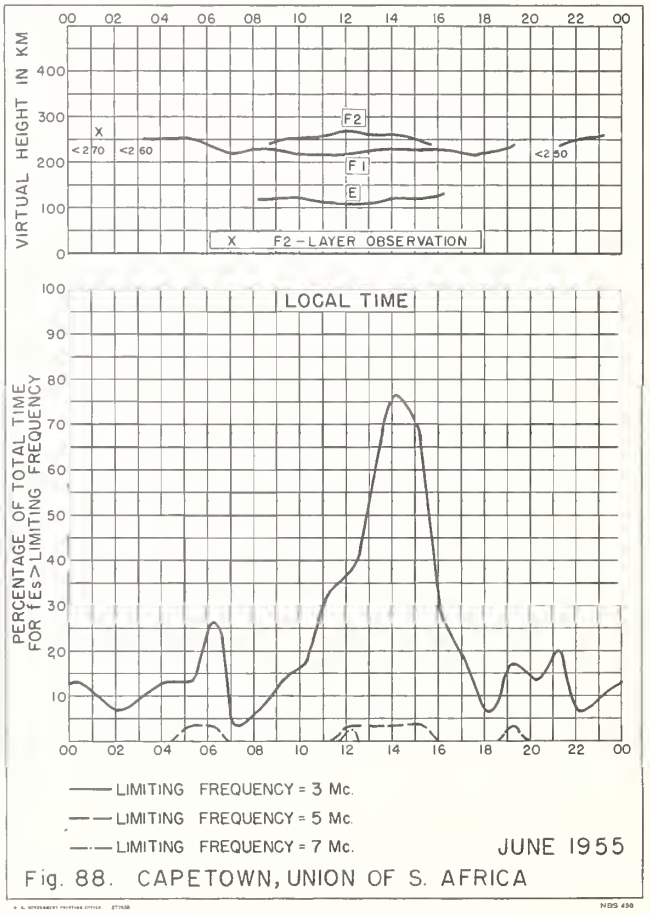


Fig. 87. CAPETOWN, UNION OF S. AFRICA
34.2°S, 18.3°E JUNE 1955



JUNE 1955

Fig. 88. CAPETOWN, UNION OF S. AFRICA

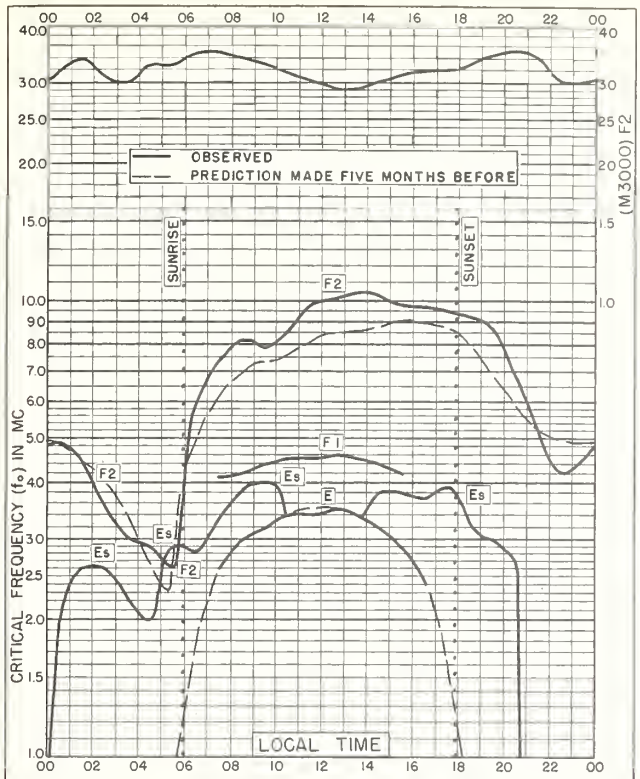


Fig. 89. NAIROBI, KENYA
1.3°S, 36.8°E MAY 1955

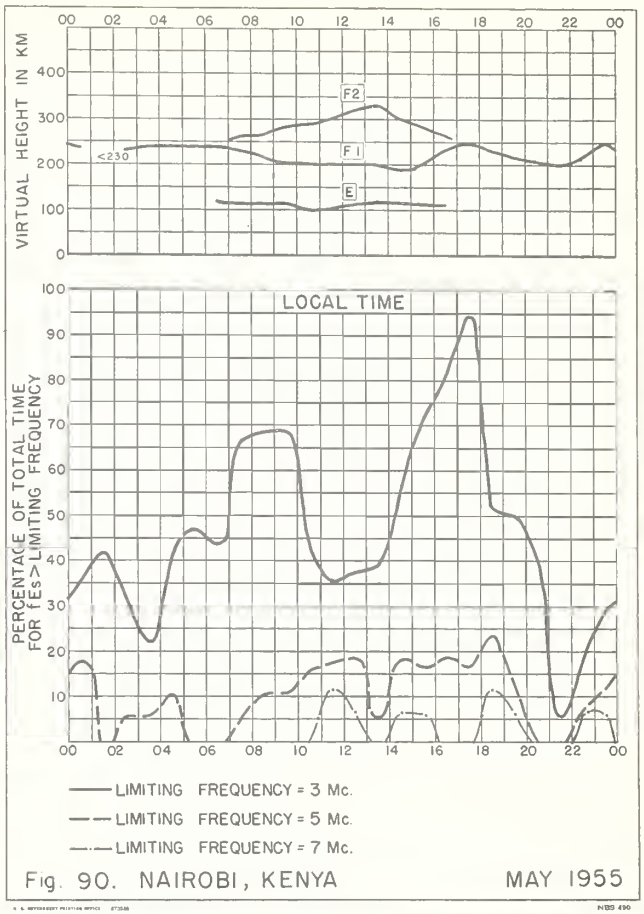


Fig. 90. NAIROBI, KENYA MAY 1955

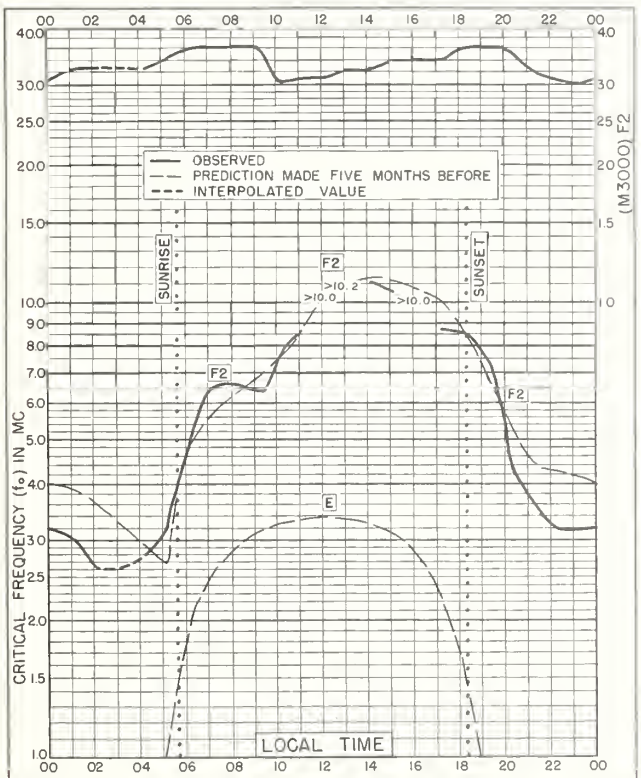


Fig. 91. DELHI, INDIA
28.6°N, 77.1°E APRIL 1955

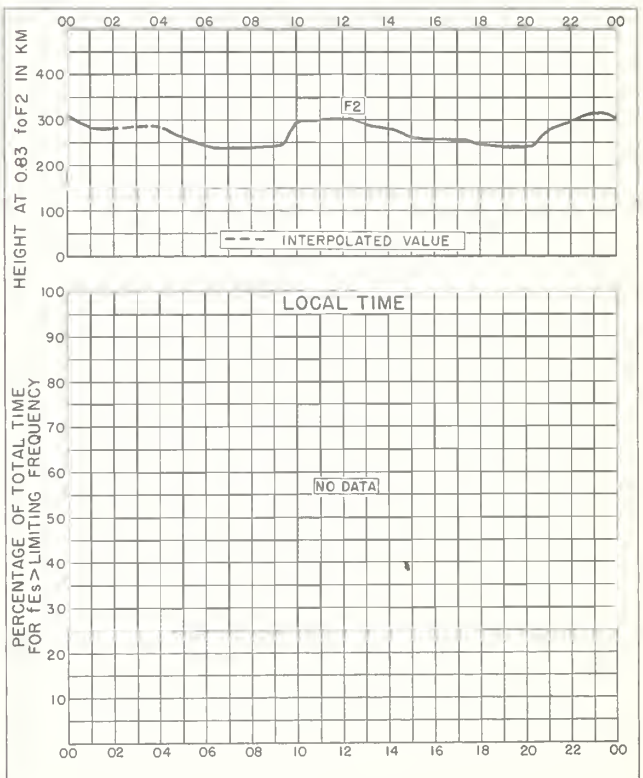


Fig. 92. DELHI, INDIA APRIL 1955

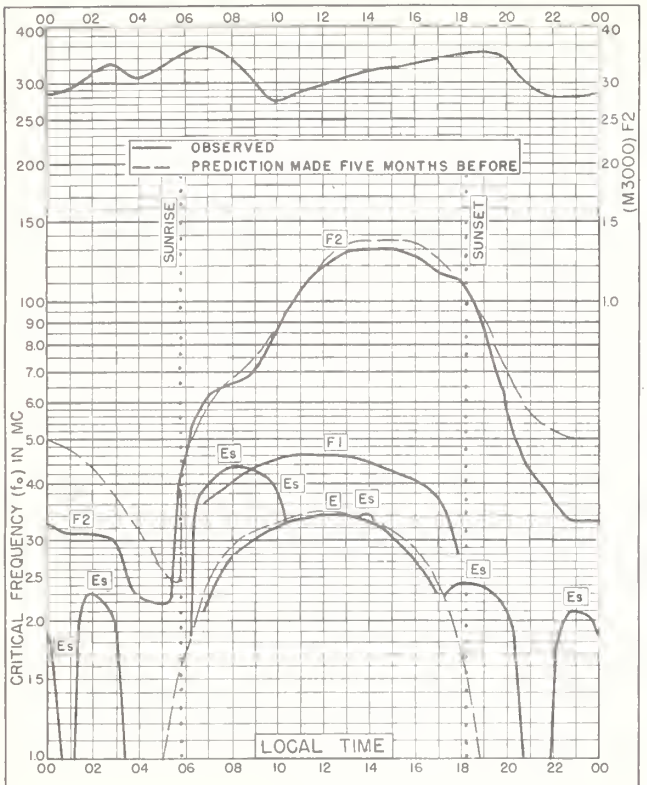


Fig. 93. AHMEDABAD, INDIA
23.0°N, 72.6°E
APRIL 1955

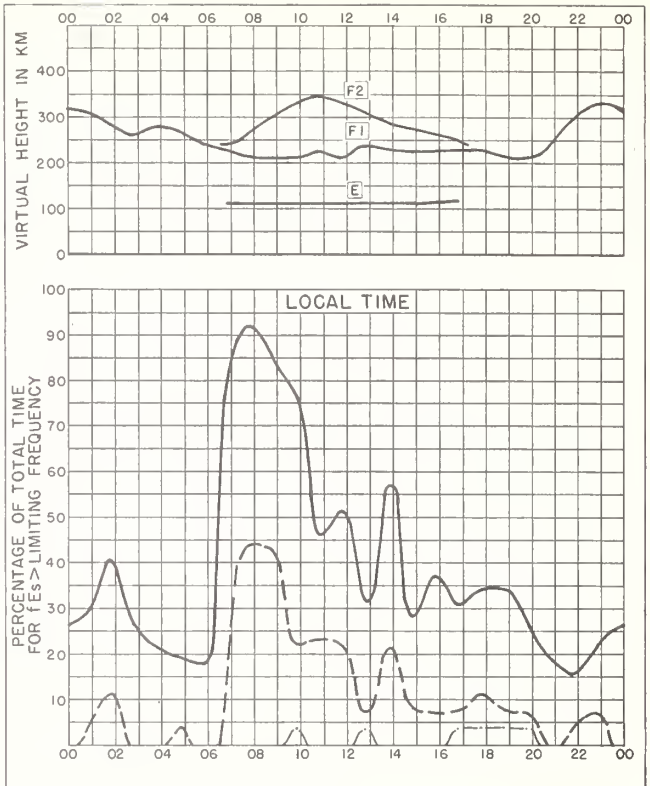


Fig. 94. AHMEDABAD, INDIA
APRIL 1955

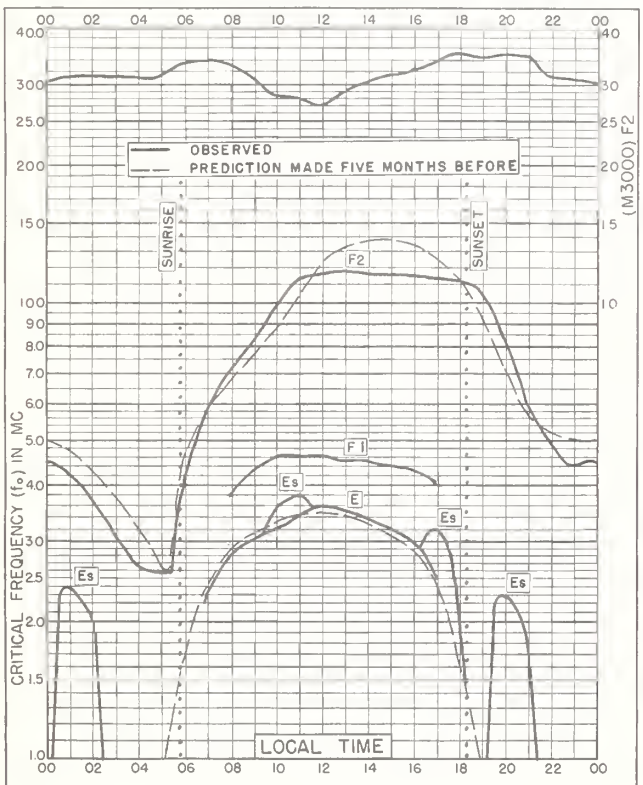


Fig. 95. CALCUTTA, INDIA
22.9°N, 88.5°E
APRIL 1955

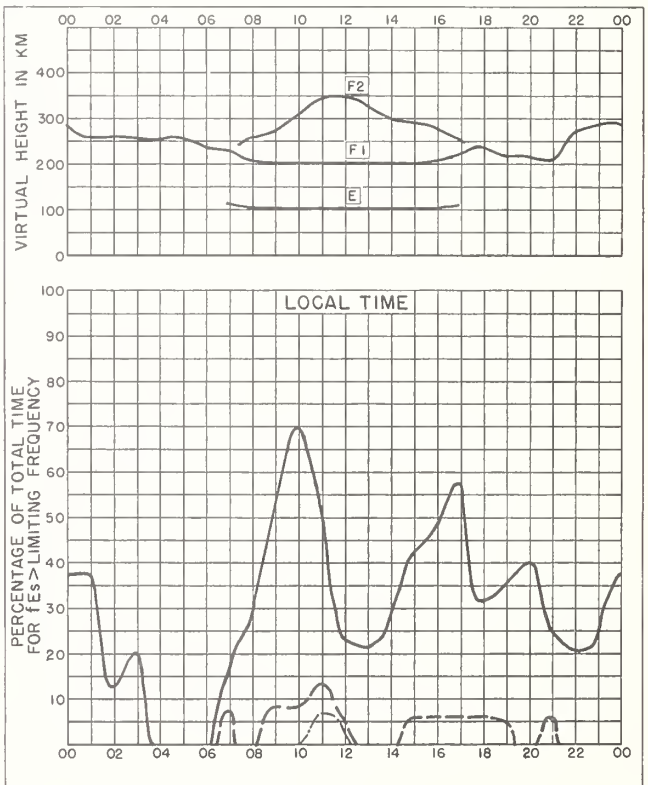


Fig. 96. CALCUTTA, INDIA
APRIL 1955

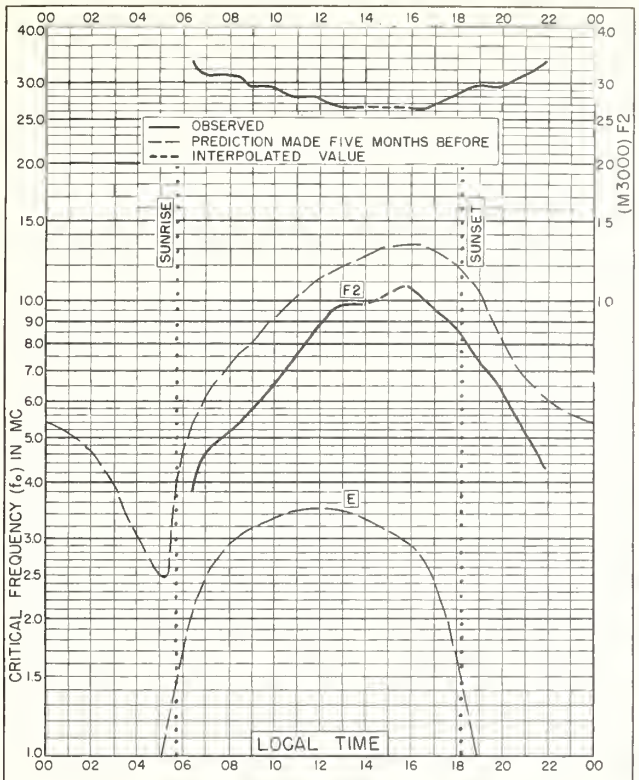


Fig. 97. BOMBAY, INDIA
19.0°N, 73.0°E APRIL 1955

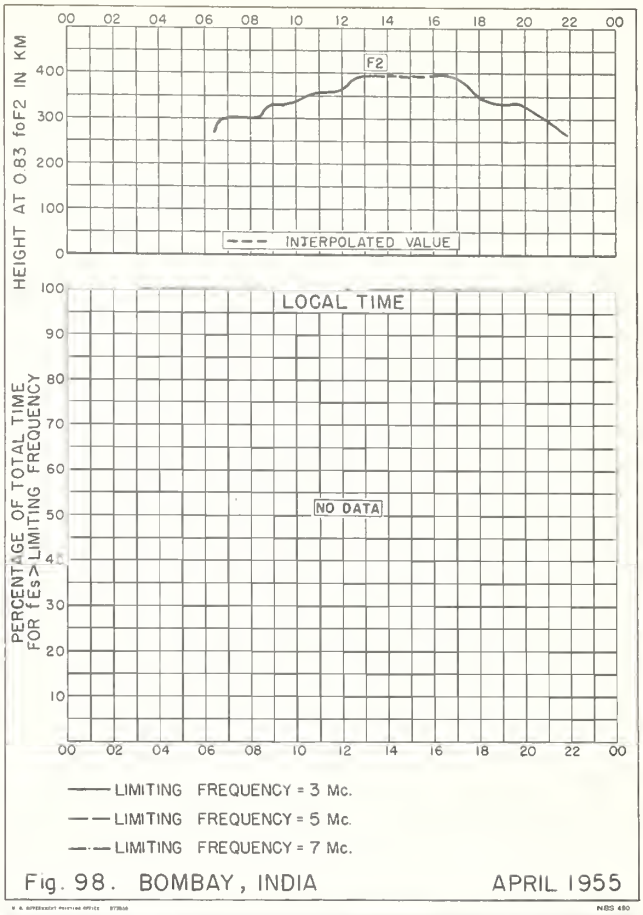


Fig. 98. BOMBAY, INDIA APRIL 1955

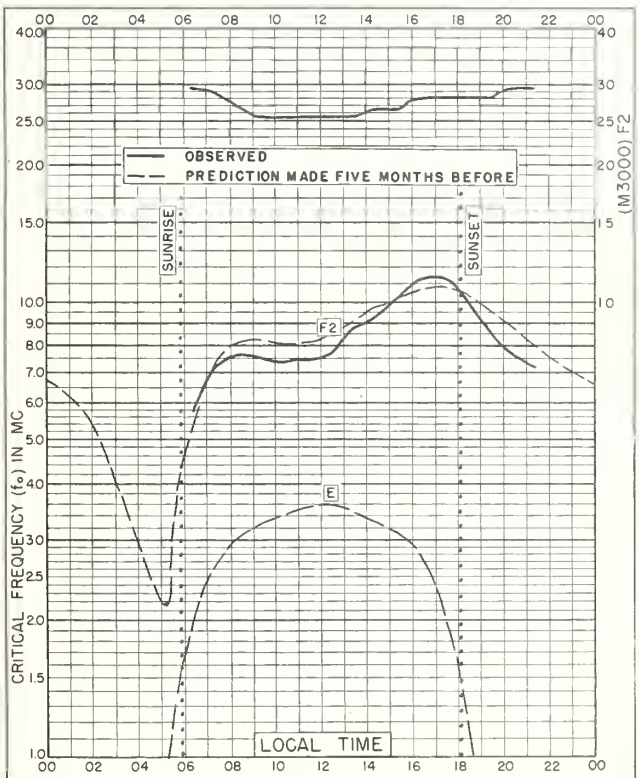


Fig. 99. MADRAS, INDIA
13.0°N, 80.2°E APRIL 1955

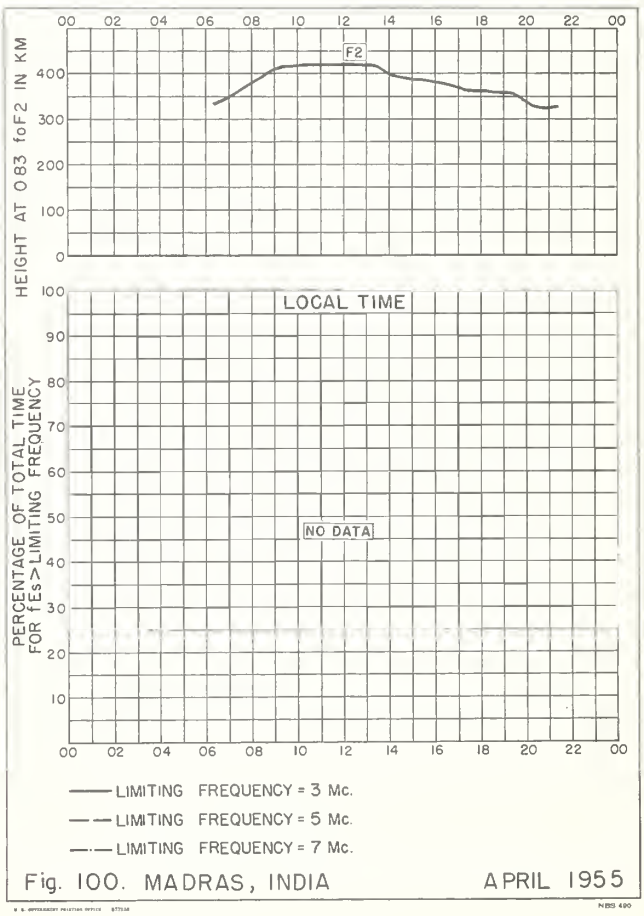


Fig. 100. MADRAS, INDIA APRIL 1955

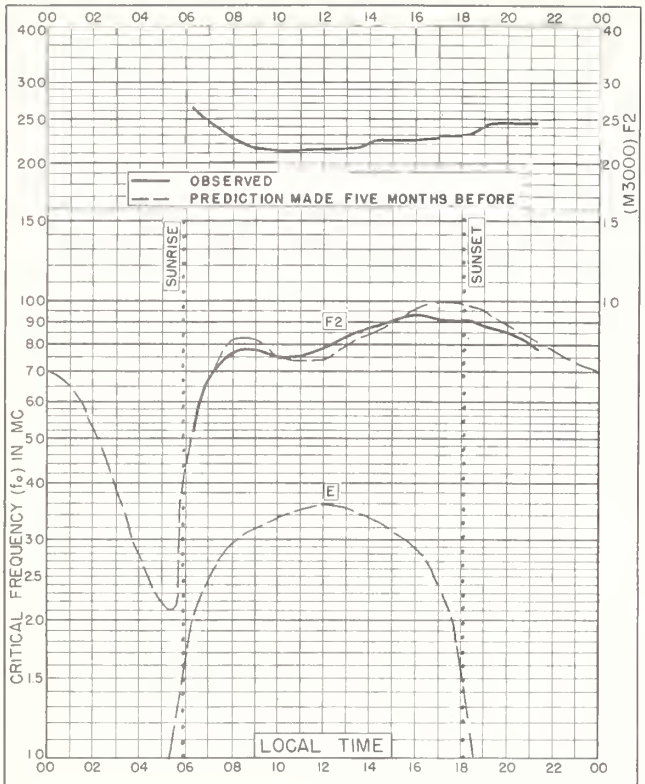


Fig. 101. TIRUCHY, INDIA
10.8°N, 78.8°E
APRIL 1955

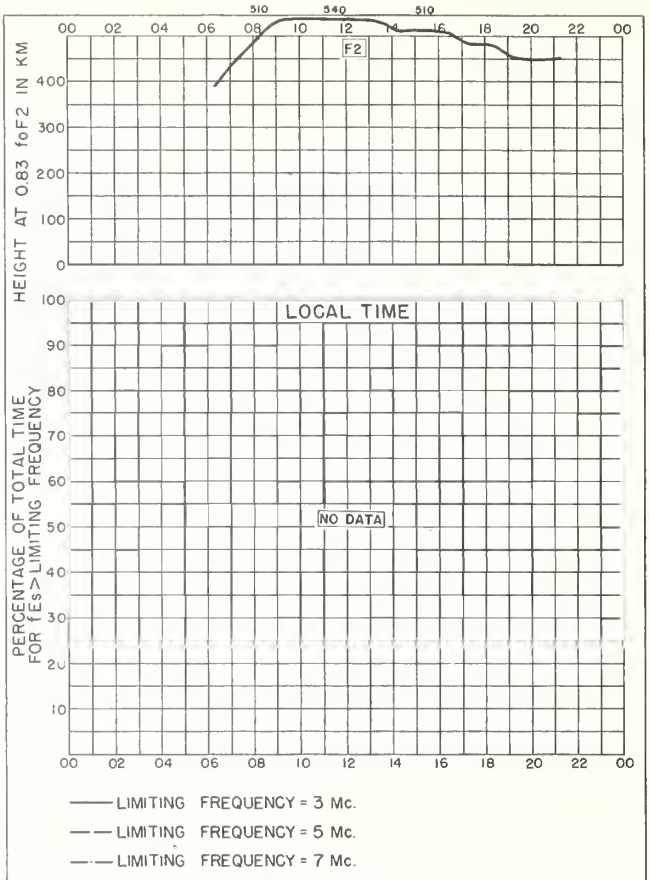


Fig. 102. TIRUCHY, INDIA
APRIL 1955

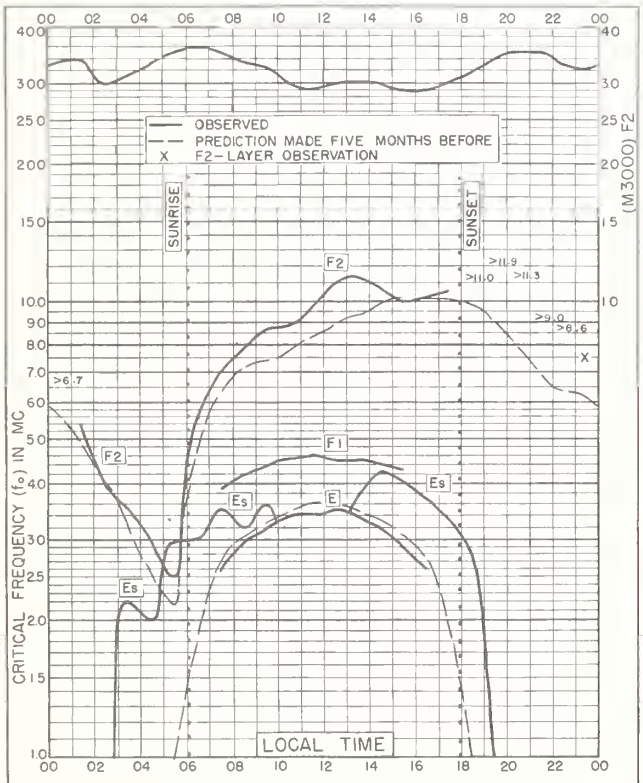


Fig. 103. NAIROBI, KENYA
1.3°S, 36.8°E
APRIL 1955

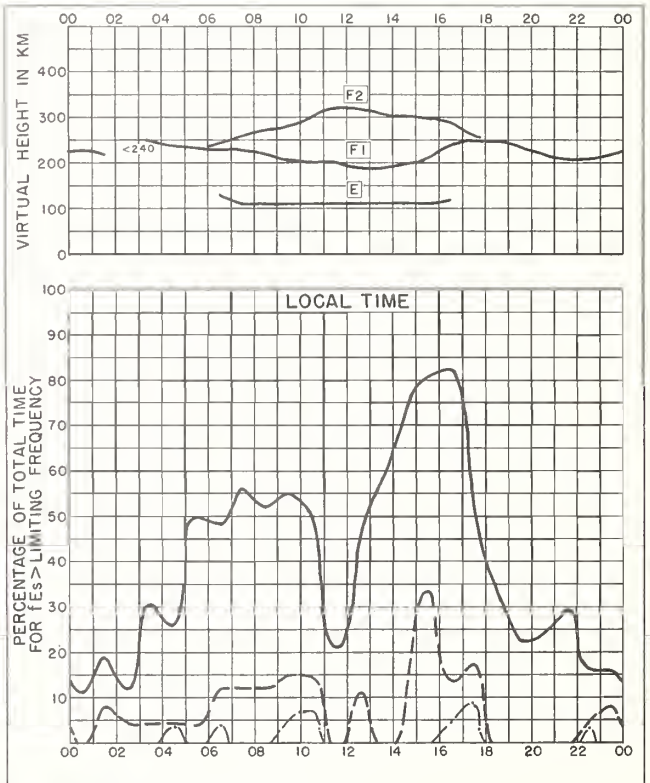


Fig. 104. NAIROBI, KENYA
APRIL 1955

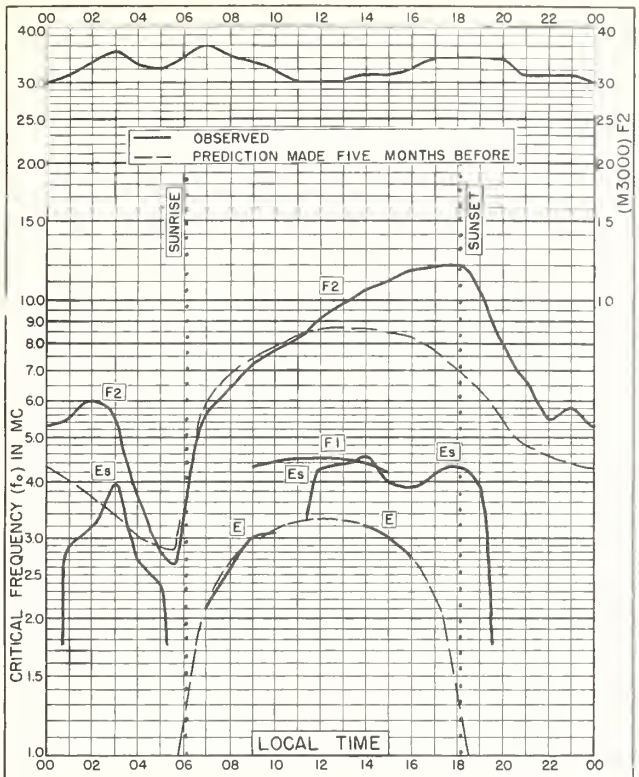


Fig. 105. SAO PAULO, BRAZIL
23.5°S, 46.5°W MARCH 1955

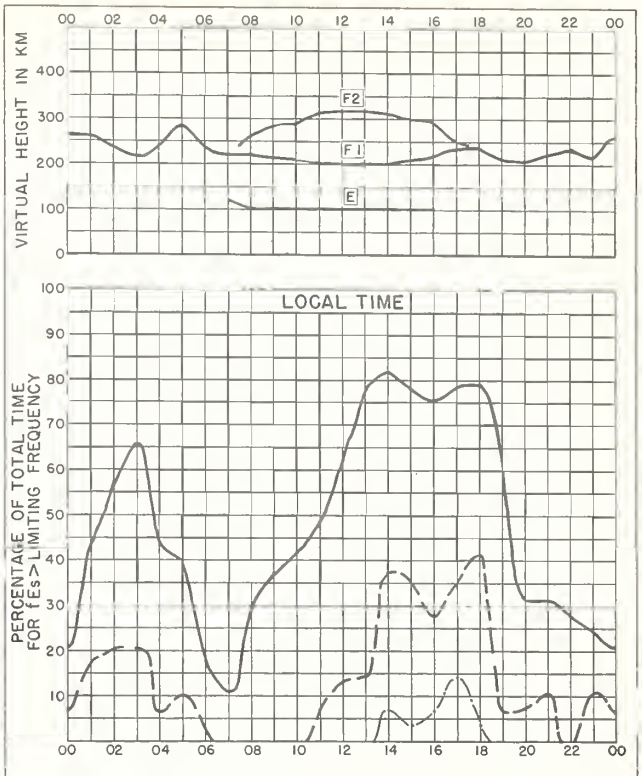


Fig. 106. SAO PAULO, BRAZIL MARCH 1955

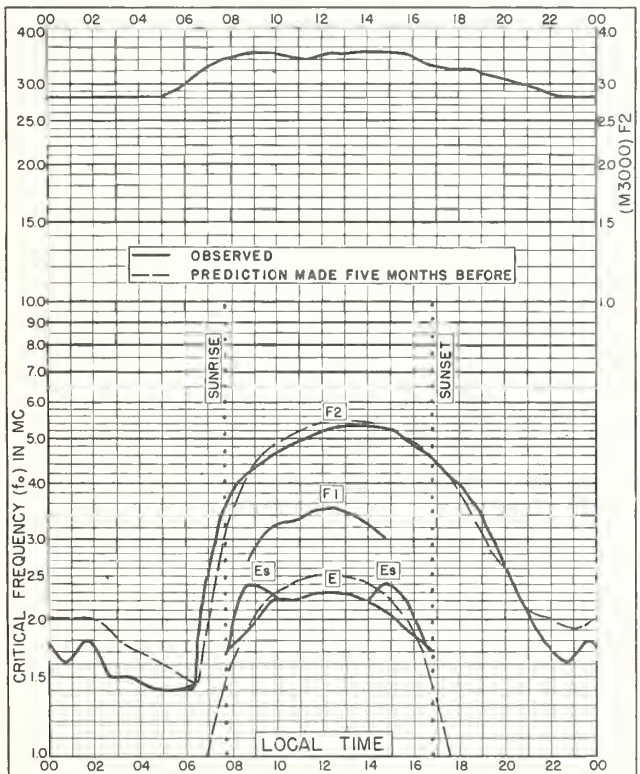


Fig. 107. INVERNESS, SCOTLAND
57.4°N, 4.2°W FEBRUARY 1955

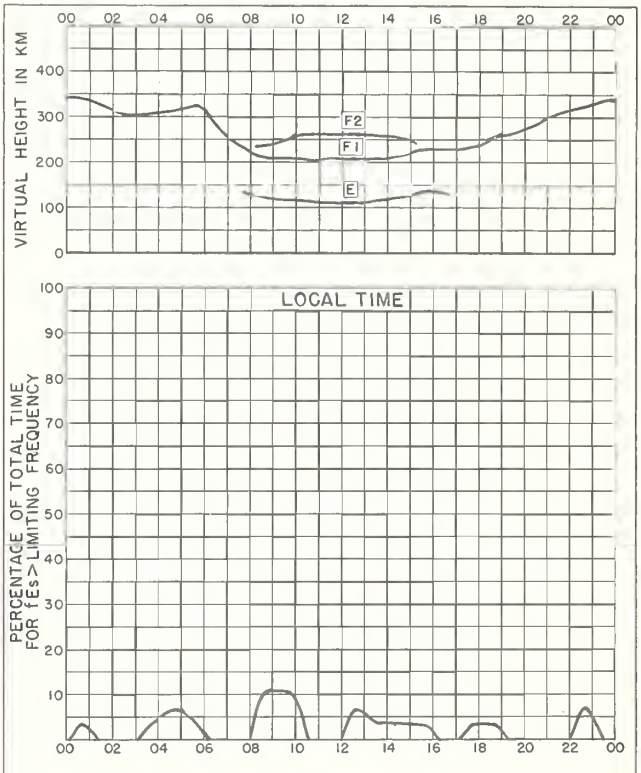


Fig. 108. INVERNESS, SCOTLAND FEBRUARY 1955

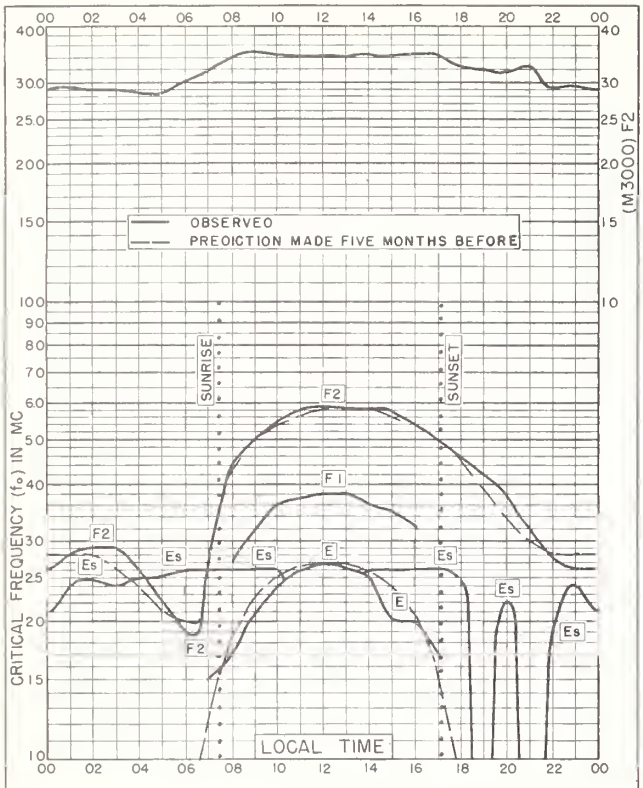


Fig. 109. SLOUGH, ENGLAND
51.5°N, 0.6°W FEBRUARY 1955

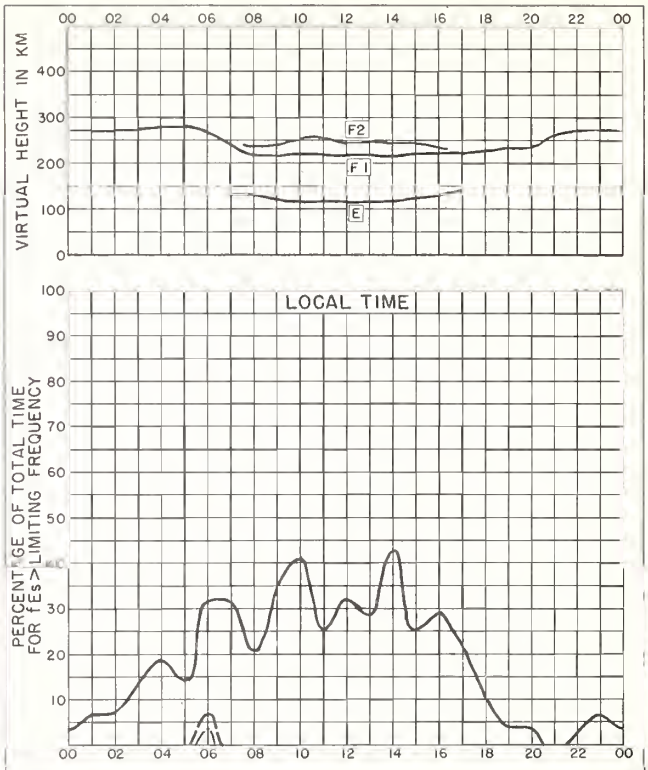


Fig. 110. SLOUGH, ENGLAND FEBRUARY 1955

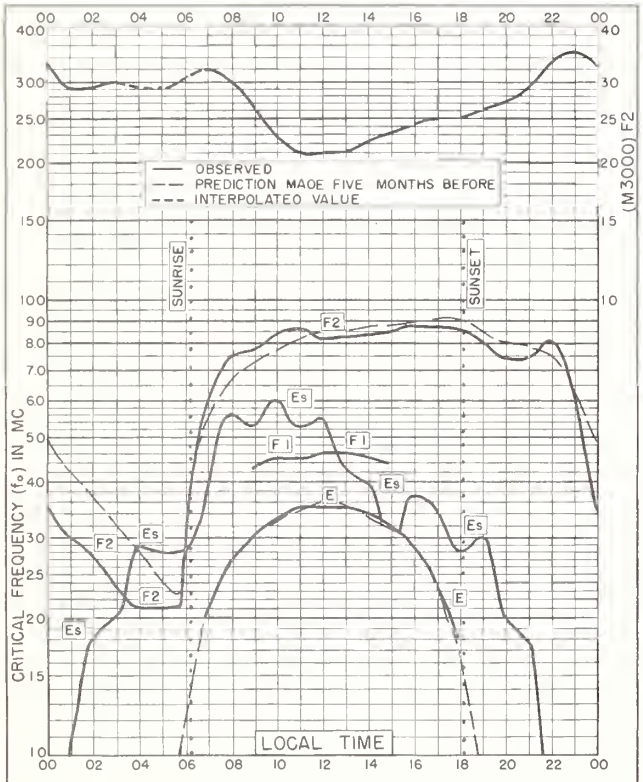
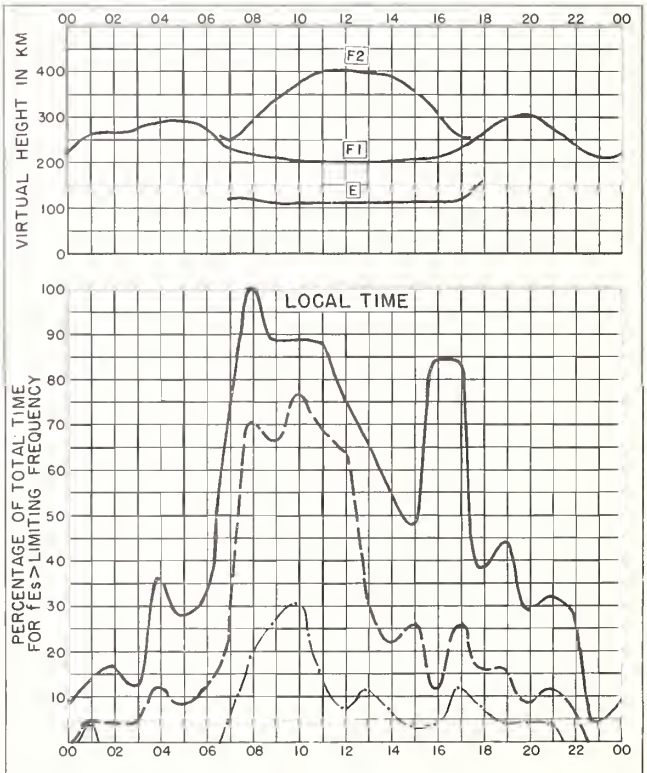


Fig. 111. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E FEBRUARY 1955



FEBRUARY 1955

Fig. 112. SINGAPORE, BRITISH MALAYA

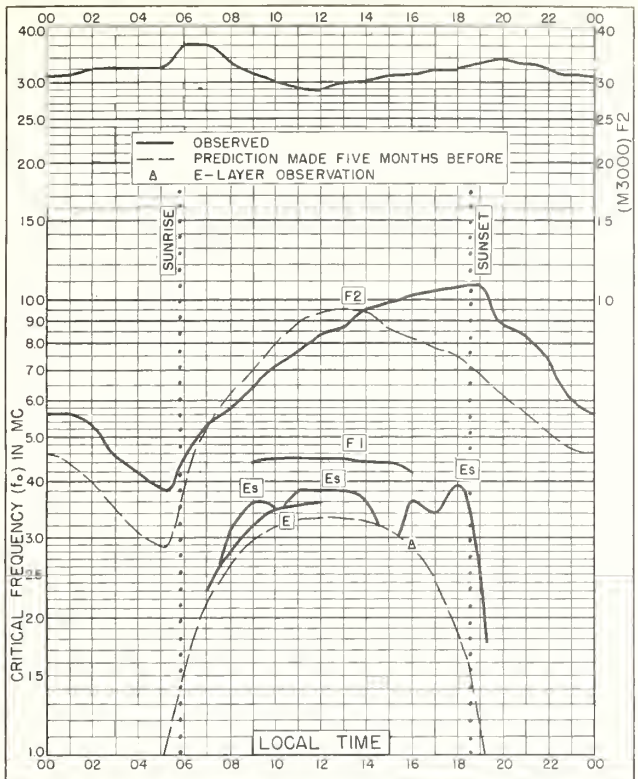


Fig. 113. SAO PAULO, BRAZIL
23.5°S, 46.5°W FEBRUARY 1955

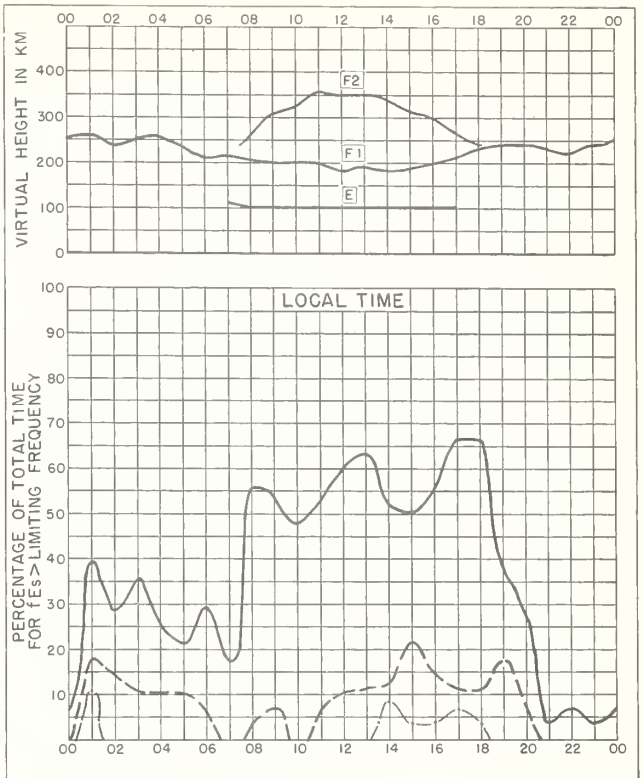


Fig. 114. SAO PAULO, BRAZIL FEBRUARY 1955

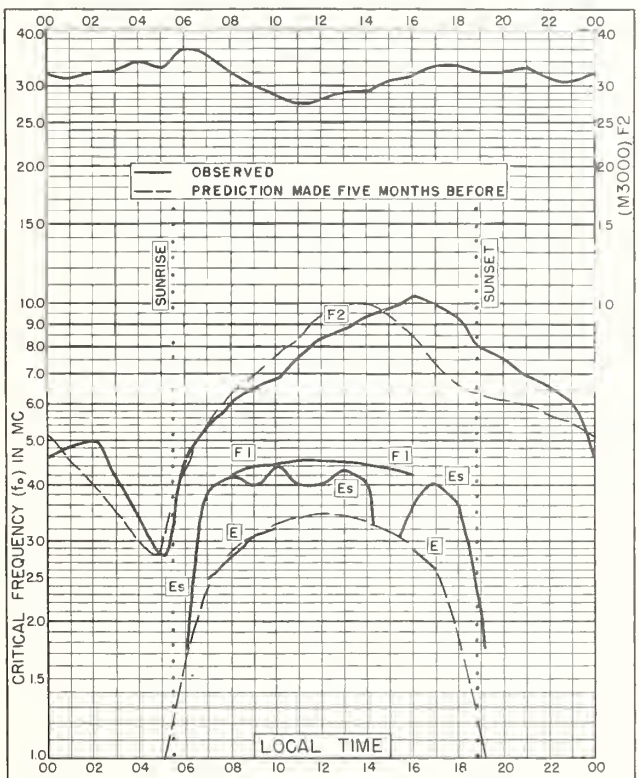


Fig. 115. SAO PAULO, BRAZIL
23.5°S, 46.5°W JANUARY 1955

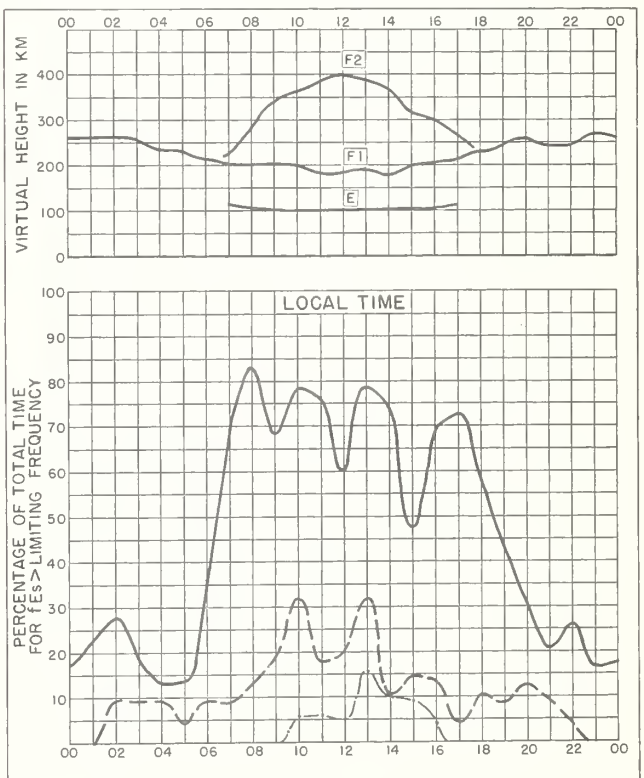


Fig. 116. SAO PAULO, BRAZIL JANUARY 1955

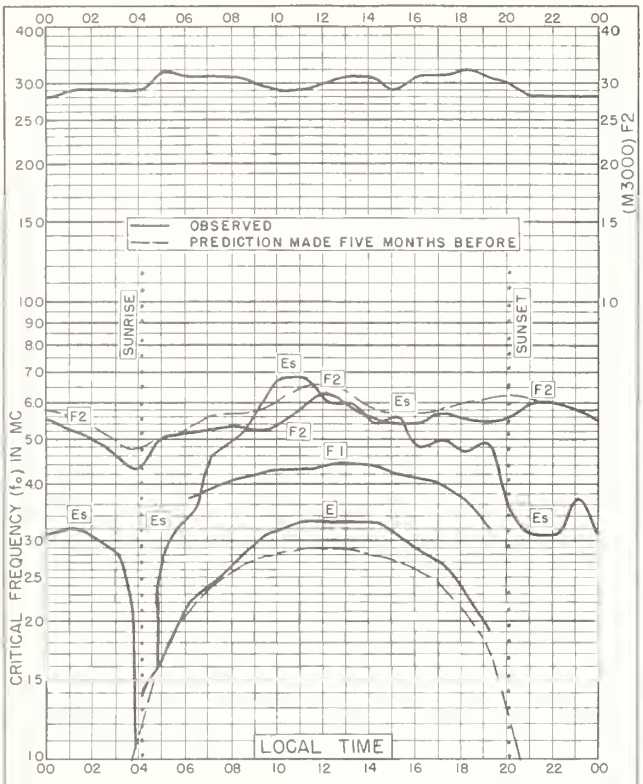


Fig. 117. FALKLAND IS.
51.7°S, 57.8°W JANUARY 1955

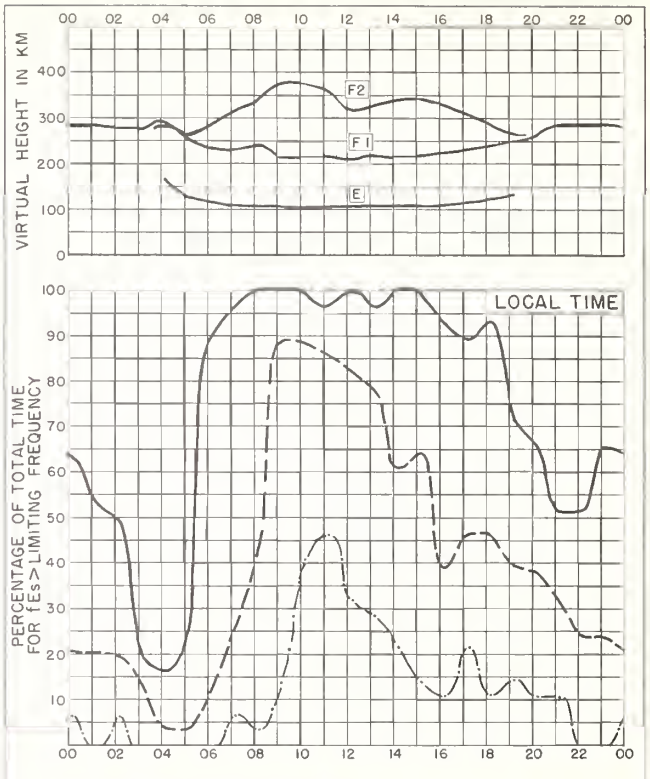


Fig. 118. FALKLAND IS. JANUARY 1955

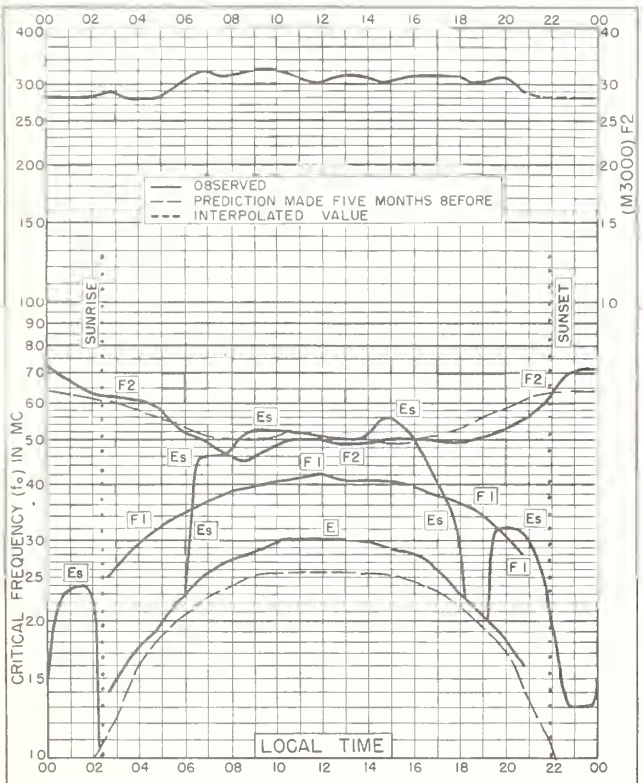


Fig. 119. PORT LOCKROY
64.8°S, 63.5°W JANUARY 1955

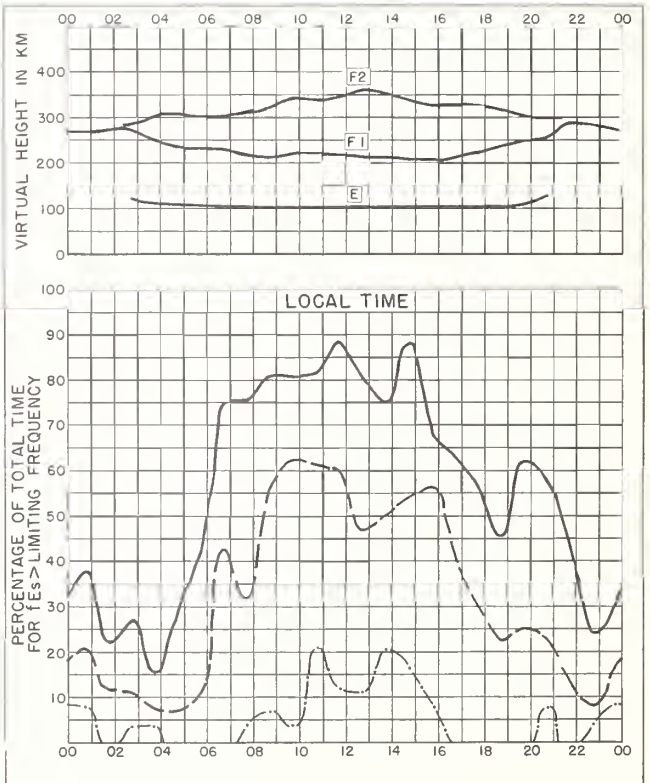


Fig. 120. PORT LOCKROY JANUARY 1955

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